Low-dose Rituximab and concurrent adjuvant therapy for pemphigus: Protocol and single-centre long-term review of twelve patients

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Pemphigus vulgaris is a chronic, autoimmune B-cell mediated blistering disease, associated with significant morbidity and mortality. Rituximab has proven effective for treatment of steroid-refractory pemphigus in multiple studies, although there is controversy regarding the optimum dose for inducing remission. Additionally, there is a paucity of published evidence regarding the optimal adjuvant therapy for managing this difficult condition, and effective disease control often requires long-term immunosuppression, even in disease-free periods. We present a case series of single-centre long-term follow up of twelve patients with pemphigus, treated with Rituximab along with concurrent adjuvant therapy. Nine patients were treated with two 500 mg doses of Rituximab separated by 14 days, and a further three earlier patients were treated with doses of 375/m2, receiving either two, three or four infusions in total. In all patients, Rituximab resulted in B-cell depletion, along with a reduction in blistering disease. Three of the patients treated with low-dose Rituximab required repeat dosing cycles, due to either relapsed disease or incomplete disease control following the first dosing cycle, and have remained disease free out to as long as 146 weeks thus far. Low-dose Rituximab, with concurrent use of mycophenolate mofetil (MMF) appeared to be a safe and effective means of inducing and maintaining remission in our case series. Based on our experience and a review of the literature, we propose a protocol for the use of Rituximab and concurrent adjuvant therapy with MMF for the treatment of pemphigus.

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Prognostic value of nomograms incorporating biomarkers vs. sentinel node status in patients with stage IB and II melanoma

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Introduction: While sentinel lymph node status is a valuable prognostic marker for cutaneous melanoma, it is associated with significant cost and potential morbidity. Additionally, the majority of patients that undergo this procedure will have a negative result. We aimed to assess the combined predictive value of established prognostic biomarkers with clinical parameters in a cohort of high risk melanoma patients, comparing their predictive power to SNL status.

Methods: Tumour samples were obtained from patients with stage IB and II melanomas undergoing sentinel lymph node biopsy at the Princess Alexandra Hospital between 1998 and 2007. Disease progression data was obtained prospectively and information on death was further validated through the National Death Index. Established protein biomarkers (Ki67, p16, and CD163) were assessed using immunohistochemistry. Models were generated using multivariate survival analysis for both disease-free and melanoma-specific survival.

Results: 189 patients with available tumour samples were analysed. Average Breslow thickness was 2.5 mm. 52 (17%) patients died from melanoma during the follow-up period. A model resulting in a prognostic score incorporating validated protein biomarkers and clinicopathological factors was strongly predictive of survival, independent of sentinel node status. The score allowed further classification of risk of death from melanoma in sentinel node negative patients.

Conclusions: The combination of clinicopathological factors and established biomarkers can allow better prediction of outcome in stage IB and II melanoma. Further, these protein biomarkers are previously-validated, simple to use and are already used routinely in pathology laboratories, allowing this approach to be implemented immediately for melanoma patients.
**Survival in patients with multiple primary melanomas vs. single primary melanoma**

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**Introduction:** Multiple primary melanomas occur frequently, particularly in high risk populations such as Australia. Currently, little is known as to how this impacts survival for patients. We aimed to establish whether melanoma survival is worse for patients with multiple melanomas compared to those with a single invasive primary melanoma.

**Methods:** A cohort study was conducted, with patients sourced from an Australian population. Follow-up information was collected retrospectively from registry data. Survival analysis was performed using four different models, each selecting a different index melanoma lesion, with adjustment for established clinicopathological factors.

**Results:** 1068 stage I and II melanoma patients were followed up for a median of 24.4 years. Multiple primary melanomas occurred in 17.8% of the cohort (190 patients). Older age and male gender were found to be risk factors for developing multiple melanomas. Other clinicopathological parameters were similar between the multiple and the single primary melanoma groups. After adjustment for age, sex and Breslow thickness, multiple primary melanoma was a hazard for death from melanoma, across all four models, reaching significance in the model considering the last invasive lesion as the index melanoma (HR = 2.76, p = 0.017).

**Conclusions:** Patients with multiple invasive primary melanomas seem more at risk of death from melanoma, independent of known prognostic factors. These results have potential implications on clinical practice, suggesting that it may be beneficial for increased follow up regimens for these high risk individuals.

**Giant cutaneous horns: A case study and a review of the literature**

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Giant cutaneous horns have long been a matter of fascination to not only dermatologists but to the layman. They are relatively uncommon lesions, particularly in developed countries. Otherwise known by the Latin name of “Cornu Cutaneum” they resemble the horn of an animal and are seldom left to grow to any substantive length.

Presented is the case of a 95 year old Caucasian British female who presented to Queens Hospital, London with a giant cutaneous horn growing from her right axilla measuring 50 cm in length. The patient lived independently but due to her mild dementia she was unable to give a detailed history of the horn’s growth. The first confirmed sighting of the horn was in 1963 by the patient’s daughter-in-law. The histological examination of the specimen revealed that it was a verrucous squamous cell carcinoma arising within a seborrhoeic keratosis. This case is unusual not only due to the size of the horn but also due to the site with cutaneous horns more commonly presenting on chronically photo-exposed areas.

The case with clinical photos and histology along with a review of the literature published on giant cutaneous horns will be presented for discussion.

**Outcomes of surgical management for hidradenitis suppurativa**

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**Introduction:** Hidradenitis suppurativa (HS) is a chronic and debilitating condition, characterised by painful abscesses, nodules and discharging sinus tracts. The management of HS remains challenging, with many pharmaceutical options demonstrating limited clinical efficacy. Although medical management can prove beneficial in mild cases, recurrences are frequent. Surgery is considered curative and includes incision and drainage, deroofing, and local and wide excision. Deroofing has emerged as a safe and effective method in the surgical management of HS. Deroofing is a technique that removes the roof of each abscess, nodule, and sinus tract, with communicating cavities exposed with scissors, electrotherapy, or a CO2 laser. Deroofing maximises the preservation of normal surrounding tissue, and converts HS lesions into flat scars.

**Methods:** The study was conducted at the Princess Alexandra Hospital Dermatology Department, Brisbane, Queensland. We reviewed 15 sites in 6 patients with draining fistulae present for at least 6 months. Deroofing was undertaken in these patients as an outpatient procedure during 2014 and 2015, with a follow-up of up to 24 months.

**Results:** A total number of 15 deroofing procedures were undertaken during the study period with 20% (3 sites) involving the axilla, 15% (2 sites) involving the gluteal area, 27% (4 sites) involving the perineal area and 20% (3 sites) involving the inguinal region.

None of the lesions demonstrated recurrence during the follow-up period.

**Conclusions:** Surgical management in HS appears promising. The deroofing technique represents an effective surgical intervention for the treatment of persistent HS lesions, with limited recurrence.

**References**

Vismodegib in the treatment of basal cell carcinoma – Cases and a review of the literature

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Basal cell carcinoma is the most commonly diagnosed cancer and in most cases, can be successfully treated with surgical resection. In some patients, these cancers can reach a locally advanced state which is not amenable to surgery or radiotherapy, or these cancers may rarely metastasize. Treatment options for these individuals with locally advanced or metastatic basal cell carcinoma have until recently been limited. Basal cell carcinomas have been shown to demonstrate genetic alterations in hedgehog signaling pathway causing aberrant pathway activation resulting in uncontrolled proliferation of basal cells. The development of the novel hedgehog inhibitor Vismodegib has provided a new management option for high risk patients – an alternative treatment modality showing promising results. We discuss our experience with the use of this agent in two patients from a private dermatology practice in Perth. Both patients had numerous basal cell carcinomas for which surgical resection would have been challenging and cosmetically disadvantageous. We provide an up to date review and discuss pertinent issues with regards to using Vismodegib relevant to the practicing dermatologist.

Pediatric psoriasis is associated with increased waist to height ratio in the absence of obesity: A multi-centre Australian study

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Introduction: Recent evidence suggests that psoriasis poses a cardiometabolic risk in children. This has not been explored in an Australian population and best way to screen for this increased risk has not yet been established. Waist to height ratio (WHR) can easily identify children with increased central adiposity and it is a simpler alternative to BMI that does not require growth charts or percentiles. Having a WHR ≥ 0.5 is predictive for future cardiovascular risk.

Method: A multi-centre cross-sectional prospective study case control study from 7 February 2014 to 15 July 2015 in Australia. Inclusion criteria included a diagnosis of psoriasis by a specialist dermatologist and age 2–16 years (n = 175). Controls were selected randomly in patients with non-inflammatory skin conditions (n = 88).

Results: Children with psoriasis were more likely to have increased central adiposity with WHR ≥ 0.5 (29% vs. 11%; p = 0.002). Four children with psoriasis were found to have metabolic syndrome compared to none in the control group. Children with moderate or severe psoriasis had a slightly higher incidence of overweight/obesity relative to those with mild psoriasis using BMI (19.5% vs. 12.9%). Three children with moderate/severe psoriasis had metabolic syndrome compared to 1 child with mild psoriasis (7.5% vs. 0.8%; p = 0.04). BMI did not vary significantly between children with psoriasis compared to controls (12% vs. 14%; p = 0.55).

Conclusion: A third of children with psoriasis were not overweight according to BMI but had a high WHR. We suggest that the WHR, an easily administered screening tool be utilized in the management of children with psoriasis.

Modified 5-Fluorouracil (5-FU) chemo-wraps for the home management of intraepidermal carcinoma (IEC) and disseminated superficial actinic porokeratoses (DSAP)

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The treatment of multiple intraepidermal carcinomas (IEC) with weekly chemo-wraps of topical 5-fluorouracil (5-FU) under occlusion has been previously reported; however, the dressings previously described require specialist weekly application and are intensive in terms of staff hours and patient visits. The management of disseminated superficial actinic porokeratoses (DSAP) with 5-FU chemo wraps has yet to be reported. Both conditions represent treatment dilemmas for clinicians with many treatment modalities showing limited success. We report a successful case series of a modified method for 5-FU twice weekly overnight occlusive wraps in the treatment of both multiple IEC on the legs and DSAP on the arms and legs.
A snapshot of skin cancer prevalence in the liver transplant recipients in Queensland – Is there a role for dedicated dermatology clinics?
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Introduction: Keratinocyte cancers such as squamous cell carcinoma and basal cell carcinoma are commonly encountered cutaneous neoplasms in solid organ transplant recipients (OTRs) and lead to significant morbidity as well as mortality.1 While sizeable literature exists regarding prevalence and risk factors in renal transplant recipients, this data remains scarce in the liver transplant recipients in Queensland. The aim of this study was to review the prevalence of keratinocyte skin cancers in a subset of 183 liver transplant recipients in Queensland. The frequency of skin surveillance measures and photoprotection behaviours were also studied.

Methods: A total of 183 patients were recruited from the Princess Alexandra Hospital in Brisbane. A whole body skin examination was performed to record the prevalence of skin cancers, along with data on photoprotection behaviours as well as skin surveillance measures using questionnaires.

Results: The prevalence of histologically proven keratinocyte cancers in this subset of transplant recipients was found to be 27%. The skin surveillance measures currently practiced were sub-optimal with only a third of the patients complying with the recommended international transplant skin care guidelines. Funding and establishment of focused transplant dermatology clinics may have a role in minimising barriers to skin care and thus improving overall health outcomes in these high-risk individuals.

Reference

Multiple pyogenic granulomas arising spontaneously within large capillary vascular malformations during pregnancy
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A 36-year-old Caucasian primigravida presented at 58 weeks gestation after spontaneously developing six violaceous pedunculated tumours located on the right arm and left back 7 weeks prior. Each tumour was noted to be within irregular violaceous patches present since birth, previously diagnosed as port wine stains. The pregnancy was complicated by gestational diabetes mellitus, hypertension and mild pre-eclampsia. Two weeks after parturition the tumours had slightly decreased in size but were still symptomatic and so were removed with shave excision and electrodessication. Histopathology revealed lobulated capillaries with plump endothelial cells lined by squamous epithelium, some with ulceration, consistent with pyogenic granulomas.

Reports of single pyogenic granuloma arising spontaneously within a capillary vascular malformation during pregnancy and multiple after laser treatment exist. To our knowledge, this is the first case of multiple pyogenic granulomas arising spontaneously within multiple port wine stains during pregnancy without prior laser treatment.

Pseudo-mycosis fungoides induced by anti-tumour necrosis factor therapy
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Pseudo-mycosis fungoides is a type of pseudolymphomatous reaction that can be induced by certain drugs. This benign condition has clinical and histopathologic features similar to mycosis fungoides. To our knowledge there has been only three reported cases of cutaneous pseudolymphoma associated with anti-tumour necrosis factor therapy. We describe two cases of pseudo-mycosis fungoides following treatment with tumour necrosis factor-alpha inhibitors adalimumab and certolizumab. Both patients presented with erythematous patches and plaques resembling mycosis fungoides. Histopathology showed a predominant lymphocytic inflammatory infiltrate with mild lymphocyte epidermotropism however there was no molecular evidence of T-cell monoclonality.
Mucosal-associated invariant T (MAIT) cells: What are they and what are they doing in skin?

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Introduction: Mucosal-associated invariant T (MAIT) cells are a novel subset of innate-like T cells that comprise 1–10% of human peripheral blood T cells and are enriched in mucosal tissues. MAIT cells exhibit several characteristic features including expression of the semi-invariant T cell receptor Vα7.2 and restriction by the non-classical major histocompatibility complex (MHC) class I-like molecule MR1. The presence of MAIT cells in normal and psoriatic human skin has recently been reported, but their expression of skin-tropic molecules and involvement in other cutaneous pathologies has not yet been explored.

Methods: To examine the expression of skin-tropic molecules by MAIT cells at steady state, we performed flow cytometric analysis of blood and skin samples from healthy donors. To investigate any potential wider contribution of MAIT cells to skin disease, we examined psoriasis, alopecia areata and dermatitis herpetiformis biopsies using immunofluorescent staining to identify the proportion of T cells expressing MAIT cell surface markers.

Results: We found that MAIT cells constituted a small population of T cells in normal human skin, similar to the percentage found in peripheral blood. Like other skin T cells, skin MAIT cells expressed high levels of the skin-associated markers cutaneous lymphocyte antigen and CD105. Interestingly, in psoriasis and alopecia areata the proportion of MAIT cells was similar to that found in normal skin, but in dermatitis herpetiformis the proportion of MAIT cells was significantly elevated. These results suggest that MAIT cells may play a role in the pathogenesis of dermatitis herpetiformis.

A case of juvenile temporal arteritis associated with angiolymphoid hyperplasia and eosinophilia

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Juvenile temporal arteritis is a rare condition that is seen in individuals in the first four decades of life. It is characterised by painless swelling, eosinophilia and non-necrotising non-granulomatous inflammation with predominantly lymphoeosinophilic infiltration of the temporal artery. It has been described in isolation and in association with conditions such as Kimura’s disease and Angiolymphoid Hyperplasia with Eosinophilia. We describe a case of a 55-year-old lady who presented with a 4 month history of intermittent left periorbital swelling, associated with a non-tender, pulsatile lump over the left temple, with firm overlying tissue. She had no other systemic symptoms or signs. Histological examination revealed mild eosinophilic infiltration in the media associated with sparse multinucleated giant cells and focal disruption of internal elastic lamina. Adventitia and perivascular soft tissue showed a diffuse and intense eosinophilic-rich lymphocytic infiltration associated with proliferation of small vessels. These features are suggestive of juvenile temporal arteritis with associated angiolymphoid hyperplasia with eosinophilia. She has been followed up over the last two and half years with no symptoms of recurrence. As far as the authors are aware this is the longest published follow up documented for cases of juvenile temporal arteritis.

Evidenced based medicine

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This presentation continues a series on evidence based medicine, which is now part of the curriculum in the training program. Last year, we discussed basic statistical concepts including p-values, confidence intervals, and measures of effect (odds ratios, relative risk) etc. These concepts help convey the precision of a scientific measurement. This year, the focus of this presentation will be on systematic error, or bias, which helps convey the accuracy of measurements.

Various types of bias including selection bias, measurement bias, verification bias and publication bias will be discussed, with examples of how they affect study results. While some types of bias are obvious to the average clinician, there are many other types of bias that are more subtle, obscure, and/or difficult to comprehend without prior study or exposure to these concepts. The purpose of this presentation will be to assist clinicians in appreciation of the various sources of bias in clinical studies, which in turn will help with critical appraisal of articles in the medical literature. 

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Medicare and you. Audits, the commonest problems/ mistakes and how to avoid them
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Medicare and you, particularly relating to medicare audits; Who get’s audited? What is involved? What are the com- monest mistakes and how to avoid them?

An interview with Professor Alan Cooper, by Dr JF Shannon.

Talking to patients is as important as ordering investigations
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Talking to a patient about what bothers them, why they have presented, combined with examining clinical fea- tures evident on skin and other organ system examination is as important as ordering investigations and imaging. Investigations must be interpreted in the context of the patient's story. On their own, they cannot provide the answer to the complex biological interactions occurring in the individual patient. Additional information is needed to put the result(s) in context, to allow rational evaluation of whether results obtained are probably correct or repre- sent false positives or negatives. The clinician must use all resources and available information to determine the nature of the problem troubling the patient who has sought his help.

Medicolegal hypothetical
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A Dermatological “it’s hypothetical”. Difficult cases, some of them “morally murky”, perhaps even heated debate. How will our panellists react and how will our in house lawyer rate their responses?. All designed to help you stay out of court. Dr Jack Shannon and colleagues.

Dermatology teaching in Australian medical schools
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Background: Despite skin disease and skin cancers being causes of significant morbidity and mortality in Australia, the amount of time dedicated to dermatology teaching is still quite limited in most medical courses. The aim of this study was to define the current state of dermatology teaching in Australian medical schools with a view to developing a National Core Curriculum for Dermatology.

Methods: An electronic questionnaire was circulated to the dermatology teaching leads and/or relevant medical program co-ordinators of the 18 medical schools in Aus- tralia.

Results: Replies were received from 17 medical schools. Dermatology was included in the core curriculum in 15 schools. Time for dermatology teaching varied, as reflected by the number of lectures delivered (0–21, mean 5, median 5) and minimum clinics attended (0–10, mean 1.2, median 0). Only 4 medical schools had a compulsory clinical attachment in dermatology. Furthermore, satisfying requirements in dermatology was mentioned in the university examination regulations in only 6 schools. Certain core learning out- comes were addressed in most schools including structure and function of skin, common conditions such as atopic der- matitis and psoriasis, as well as cutaneous malignancies. However, there were important omissions ranging from common problems like dermatophyte infections and drug reactions, to the recognition of dermatological emergencies.

Conclusions: These results are a compelling impetus to improve current standards of dermatology teaching, learning and assessment. The introduction of a National Core Curriculum would provide guidelines for dermatology teaching in medical schools, enabling more effective utili- sation of available time for key learning outcomes.

The smartphone consult – Evolving legal responsibilities and vulnerabilities for dermatologists in the digital age
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With increasing functionality of smartphones and rates of ownership near universal amongst Australian medical practitioners, there has been a corresponding increase in the use of the smartphone consultation in Dermatology. The ability to receive clinical images and context via a personal mobile device can be immensely convenient for each party involved and improve timely access to dermatological care, enhance education for dermatological trainees and allow efficient triaging of patients.

Smartphone requests for advice may come from Dermatol- ogy Registrars, trainees or clinicians in Emergency or Gen- eral Practice, from patients directly or be initiated by a dermatologist who requests clinical photography prior to,
or in place of, in-person attendance of the patient. Given the inherent variability in scope, format, quality of images and context provided, and degree of reliance placed on smartphone content for diagnosis and treatment, the legal and ethical issues that surround this practice can be complex.

The authors complement the AMA’s general guidance on the use of smartphone clinical photography with a review of issues relating to liability, documentation and storage, and put forward some practical solutions to enhance dermatological practice in the digital age.

Survey of Australian dermatological postoperative patient information leaflets: Are we consistent in the guidance we provide?

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Introduction: Patient information leaflets (PIL) are commonly given to patients after skin surgery to provide guidance and reassurance once they return home. Evidence from the United Kingdom suggests that the advice provided in these PILs is highly varied.1 This survey aimed to evaluate the guidance specified in dermatological postoperative PILs across Australia.

Method: All 40 Australian teaching dermatology departments/clinics were asked to provide their postoperative PILs on sutured wound care or excision biopsy (September — October 2015). Ten preselected parameters were evaluated for each leaflet.

Results: 28/40 (70%) of departments/clinics responded, of these 11/28 (39.3%) specified that they did not use PILs. Of the 17 that provided postoperative leaflets, 6/17 (35.3%) specified a minimum dressing duration of 48 h, with an equal number stating 24 h. 12 leaflets advised regarding the time to press on a bleeding wound, with 10mins and 20mins (both 5/12) being the most guidance. 14 leaflets advised on analgesia, with the most common suggestion advocating Paracetamol only and avoiding Aspirin (4/14, 28.6%). 11/17 (64.7%) leaflets described ≥2 signs of infection, 7/17 (41.2%) advised petroleum jelly application to the wound, 16/17 (94.1%) highlighted the contact for postoperative problems, 5/17 (29.4%) mentioned scarring, and 5/17 (17.6%) PILs advised against smoking. Only 8/17 (47.1%) of leaflets provided advice regarding active excise, with the most common advice being to avoid until suture removal (2/8).

Conclusion: The advice provided in postoperative dermatological patient information leaflets is highly varied. Consensus guidelines would be of benefit to make advice to patients more consistent.

Reference

Transplant dermatology: Lessons I have learned

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With the substantial increase in the risk of skin cancers due to potent iatrogenic immunosuppression, our solid-organ transplant patients represent a population vulnerable to medical complications that can stretch dermatologists’ skill set. We will review key aspects of the care of transplant patients affected by skin cancer, highlighting critical data that guides optimal management strategies. Through a review of case examples, we will also consider practical management conundrums facing transplant dermatologists as we seek to counteract the accelerated carcinogenesis afflicting this population. Finally, we will also consider some of the humanistic aspects of caring for patients impacted by truly devastating disease after being granted the “gift of life.”

The use of tissue glue for grafts

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The use of tissue glue or adhesives are increasingly used in place of sutures for the closure of wounds. The use of tissue glue has been shown to be an effective way of closing simple wounds not under tension particularly in the paediatric population. A Cochrane study has shown no clear difference in the use of tissue glue and alternative closure techniques in terms of cosmetic results and cost. It is also a far quicker method of closing wounds than the use of sutures and may provide a barrier for infection. The use of tissue glue for grafts particularly in sites where suturing of grafts is difficult and time consuming will be discussed, and demonstrated.

How I do things differently in 2016

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I will review the evolution of my Mohs Surgery practice from 1993 to the present. The presentation will address a number of changes that I have made including operating venue, scheduling of surgery, Mohs laboratory and standards, patient care on the day of Mohs surgery, staff roles, technical aspects of the Mohs procedure, progression to immunohistochemical stains, reconstructive advances, post-op care, CPD.
An audit and review of the operation of Australia’s first and only public Moh’s surgery clinic within a tertiary referral center

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Introduction: Currently, there is one hospital in Australia that allows public access to Moh’s micrographic surgery. Our purpose was to report the clinical findings and history of the operation of the Moh’s service at Royal North Shore Hospital from February 2002 – October 2015.

Method: An audit of the Moh’s tertiary referral clinic at Royal North Shore was performed from February 2002 to October 2015. This included 248 patients and 302 lesions with detail on histopathology, recurrence rates, closures and cuts required. This audit also reviewed surgical outcomes including the number and nature of complications associated with Moh’s procedure such as infection, graft failure and referral to plastics.

Results: A total of 248 patients with a mean age of 68 years (range, 25 - 95 years) were included with majority of the lesions found to be BCC (245) of which 28.8% of cases of BCC were recurrent. Other lesions included 56 SCC, 6 melanoma-in-situ and 2 MAC. Most lesions (57.7%) were on the nose, followed by other head and neck areas; temple (9.6%), cheek (5.3%) and forehead (5.3%). The most common histological subtypes were infiltrating (55.7%), morphoeic (9.4%) and nodulocystic (7.4%). Complications included 5 documented wound infections, 2 small flap necrosis (healed with dressings) and 2 total graft failures. There were 52 referrals to plastic surgeons, 7 of which were urgent, 14 pre-arranged and 11 were to occulo-plastics.

Retrospective audit of management and outcomes for patients referred to The Peter MacCallum Cancer Centre following Moh’s Surgery

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Mohs micrographic surgery (MMS) is a well established treatment for high-risk basal and squamous cell carcinomas, which has high cure rates whilst facilitating tissue sparing resection. Nevertheless, while MMS is considered a safe and well-tolerated outpatient procedure, it is not without complications. Rec-excision is required when tumour clearance is considered inadequate, and adjuvant radiotherapy is recommended to minimize recurrence in high-risk disease. Additional reconstructive surgery may be required when there are difficulties with defect closure. As a quaternary referral centre for cancer treatment in Australia, our centre receives referrals for multidisciplinary management of complex cutaneous cancers, including cases that have previously been treated with MMS.

A retrospective analysis of computerised medical records from 2000 – 2015 was performed, identifying 84 patients who had been referred for management of high-risk disease, complications or recurrence, after previous MMS for non-melanoma skin cancer.

Data collected included the reason for referral, tumor site and histology and if radiotherapy or re-excision was undertaken. Outcomes such as the frequency of local and metastatic recurrence were assessed. In cases where a pathologist review of Mohs slides was performed, this was compared to the opinion of the Mohs surgeon.

We present our institutional findings, outline unique cases and discuss factors that should be considered in order to minimise the risk of complications and recurrence following MMS.

Reference


Foley catheter intraoperative tissue expansion following Mohs surgery

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Techniques to facilitate closure of large or difficult wounds are many and varied. Most apply the principle of tissue creep through constant force, and resultantly assist in the subsequent primary closure or flap repair of the surgical defect. Tissue expansion as a 2-stage procedure is well described in reconstructive surgery; we present our experience utilizing a Foley catheter for immediate intra-operative tissue expansion.

All defects resulted from Mohs micrographic excisions. Patients were anaesthetized with propofol/midazolam sedation and xylocaine local anaesthetic. After blunt dissection, 1-4 Foley catheters are inserted into the defect and inflated with normal saline. Catheters remain inflated for 10-50 seconds, or until stress relaxation of tissue is observed. 1-5 cycles of inflation/deflation are performed.

Critics of immediate intra-operative tissue expansion argue gradual prosthetic expansion over weeks is required for true biomechanical modification, and that immediate expanders provide no additional efficacy over wide undermining. Our series and experience, rather, supports the efficacy of intra-operative tissue expansion in facilitating difficult wound closure. The Foley catheter provides a safe,
Inexpensive, and readily available tool in this regard. In contrast, chronic expanders carry a risk of infection, erosion/ulceration, are expensive, and by nature require multiple procedures over weeks-months.

**Melanoma Symposium**

**Increasing melanoma incidence in Australia: Climate change, ozone depletion and overdiagnosis**

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Melanoma incidence rates in Australia have increased over the past 50 years from a level of ~25 per 100,000 persons to ~50 per 100,000 persons. Although there has been a recent flattening of the incidence curve, it has been shown that this effect is due to immigration – incidence rates in the susceptible population continue to rise. Proportionate mortality rates, however, have lagged behind incidence rates over the past 50 years. What are the causes of this alarming trend in incidence on one hand, and the somewhat reassuring discrepancy between incidence and mortality on the other? Although a number of explanations have been proposed, many have lacked formal rigor and conclusions remain elusive. Here we address this issue by developing a computer simulation of melanoma demography within Australia. By quantifying various input factors – including, for example, a warming environment, lifestyle changes, ozone depletion, detection sensitivity, illness duration and overdiagnosis – we are able to determine and disentangle the effects of such factors, either alone or in various combinations, allowing more robust conclusions to be drawn.

**Developing a new melanoma drug**

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**Introduction:** Despite the recent unprecedented successes of targeted melanoma therapy, there is still no cure for this deadly cancer. The actin cytoskeleton is a desirable therapeutic target, yet targeting attempts have been hampered by unacceptable toxicity. Recently we have demonstrated that it is possible to disrupt specific actin filament populations by targeting tropomyosin Tpm3.1, a core component of actin filaments.

**Results:** We have developed a novel class of anti-tropomyosin (ATM) compounds, which preferentially disrupt the actin cytoskeleton of tumour cells impairing both motility and viability. Our first-in-class compound, TR100, reduces melanoma growth in vitro and in vivo in an animal model. Importantly, it shows no adverse impact on cardiac structure and function, the major side effect of current anti-actin drugs. This proof-of-principle study demonstrates that it is possible to disrupt specific actin filament populations by targeting tropomyosin Tpm3.1, a core component of actin filaments.
hule compounds in vitro and, in an animal model for neuroblastoma, in vivo.

**Conclusion:** These data may provide key information around the pre-clinical and potential clinical development strategy for this novel class of anti-cancer compounds. These first-in-class compounds may have utility in the treatment of melanoma and other cancer types, however formal safety evaluations need to be completed first.

**Stress induced multi-drug tolerance precedes acquired drug resistance in melanoma**

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**Introduction:** A major challenge to effective therapies in melanoma patients with advanced disease is acquired drug resistance culminating in disease relapse. For both chemotherapy and molecular targeted therapies multiple mechanisms leading to acquired drug resistance have been described. Recent evidence points to drug tolerant cancer stem cell like subpopulations prior to the emergence of permanent acquired resistant state in melanoma.

**Materials and methods:** Melanoma cells were exposed to sublethal stressful conditions such as drug exposure, hypoxia or low glucose treatment. Changes in their phenotype, signalling and epigenetic characteristics as well as in vivo properties were determined. Cell cycling behaviours using fluorescence ubiquitous cell cycle indicators were monitored.

**Results and discussion:** Melanoma cells in general exhibit an early innate response as a primary survival strategy towards unfavourable environmental conditions or drug exposure, inducing a transition into a slow cycling, multi-drug tolerant stem like state expressing markers like CD271, ABCB5 and high ALDH activity, termed induced drug tolerant cells (IDTCs). This response is led by global chromatin remodelling, activation of multiple signalling pathways and gain of a high tumorigenic potency. Upon prolonged drug exposure IDTCs undergo drug specific secondary transitions resulting in permanent resistance characterized by a reversal into a proliferative state.

**Conclusion:** There is a requirement for alternative treatment strategies including drug holidays in order to prevent or delay IDTC formation and acquired drug resistance.

**Aggressive melanoma is less likely to have histologically associated naevus**

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**Introduction:** Improvements have been made in the early detection of melanomas. However, the thickness of nodular melanoma (NM) has remained largely unchanged. NM contributes significantly to melanoma mortality with its rapid growth rate and association with aggressive histological features. The origin of melanoma has always been a controversial subject, whether melanomas arise de novo or from a naevus. Previously, studies have quoted the incidence of naevus-associated melanoma to vary from 10 to 70%. The aim of this study is to analyse if NM is less likely to be histologically associated with a naevus than superficial spreading melanoma (SSM).

**Method:** Information was extracted from the Victorian Melanoma Service database for 5501 (589 NM, 2912 SSM) melanoma patients with histological report of association with a naevus.

**Results:** 17% of NMs were found to be associated with a naevus compared with 42% of SSM. For head and neck melanomas, 12% of NMs were found to have presence of a naevus to 54% of SSM (p < 0.05). On limbs, 11% of NMs showed an associated naevus contrasting with 35% of SSM (p < 0.05) and for trunk NMs, 29% showed histological evidence of associated naevus and for SSM 53% (p < 0.05). When adjusted for patient’s age and sex, SSM was 2.5 times (CI: 1.75–5.51, p < 0.05) more likely to be associated with a naevus than NM.

**Conclusion:** Our study shows that NM is less likely to have histologically associated naevus. Public educational programs should consider adjusting its focus to detecting new skin lesions in attempt to reduce NM mortality.

**Clinical and histologic assessment of lichenoid/interface dermatitis observed in patients with advanced malignancies on anti-Programmed cell Death-1 (anti-PD-1) therapy with or without ipilimumab**

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Lichenoid drug reaction is a common adverse reaction in patients taking immune-modulatory agents such as anti-Programmed Cell Death (PD-1) and anti-cytotoxic T lymphocyte antigen-4 (CTLA-4) agents. We describe the clinical and histologic features of lichenoid drug reaction in 20 bip-
Does scalp location predict survival of head and neck melanoma?
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Introduction: It is unclear if the poor prognosis of patients with scalp melanoma compared to other cutaneous head and neck melanoma (CHNM) is due to an inherent risk associated with scalp location. This study aims to describe patient survival for scalp melanoma compared to other CHNM, and determine if any differences can be explained by patient or tumour characteristics.

Methods: A retrospective cohort study was performed of all invasive primary CHNM patients seen at the Victorian Melanoma Service over a 20 year period. For each case, survival status up to September 2014 was obtained from the Victorian Cancer Registry. Comparisons of melanoma-specific survival (MSS) were made between scalp and other CHNM. Multivariable Cox proportional hazards regression was performed to determine associations with survival.

Results: On univariate analysis, patients with scalp melanoma had worse MSS than other CHNM (hazard ratio, HR = 2.22, 95% CI 1.59–5.11). This association was largely explained by Breslow thickness of scalp melanoma (HR adjusted for thickness = 1.26, 95% CI 0.89–1.79), and further by age and sex (HR adjusted for thickness, age and sex = 1.15, 95% CI 0.79–1.61). Although scalp location was not associated with MSS on multivariable analysis for CHNM overall, scalp location had a strong association with MSS for CHNM between 0.76–1.5 mm thick (HR = 5.5, 95% CI 1.5–19.6).

Conclusion: Scalp melanoma has poorer survival than other CHNM, but this can be explained by patient age, sex and tumour histological characteristics. Further research is required to validate our findings for 0.76–1.5 mm CHNM.

Research Papers

Does isotretinoin cause depression? A dermatologists’ perception and feasibility study
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Background: Isotretinoin is the most efficacious treatment for acne vulgaris. It has been controversially associated with depression, suicidal ideation and suicide1. Current literature on this issue remains conflicted and lacks well designed blinded randomized controlled trials2.

Aim: To assess Australian Dermatologists’ experiences and perceptions with acne vulgaris patients treated with Isotretinoin and the development of depression, suicidal ideation and suicide. To conduct a feasibility study for a triple blind randomized controlled trial investigating the effects of Isotretinoin on depression and quality of life.

Methods: This project consisted of two complimentary original studies. A questionnaire was conducted at the 48th Australasian Dermatologists’ Annual Scientific Meeting. The feasibility study randomized all acne vulgaris patients meeting inclusion criteria who were willing to participate to Isotretinoin or Doxycycline for 2 weeks. Questionnaires screening for depression and quality of life were completed at baseline and at 2 weeks.

Results: The questionnaire surveyed 120 Dermatologists with 75 responses included. Many Dermatologists had observed acne vulgaris patients on Isotretinoin develop depressive symptoms (77%). Most (66%) believe Isotretinoin could cause depression. The feasibility study screened 200 acne vulgaris patients and found despite the superior efficacy of Isotretinoin, patients would accept randomization.

Conclusion: Many Australian Dermatologists are seeing acne vulgaris patients treated with Isotretinoin develop depressive symptoms and believe Isotretinoin is the cause. There is a distinct difference between clinical opinion and that in the literature. The feasibility study demonstrates a triple blind randomized controlled trial investigating the effects of Isotretinoin on depression and quality of life is possible.

References

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Acne necrotica (necrotising lymphocytic folliculitis); An enigmatic and under recognised dermatosis
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Although documented as a clinical entity by Bazin in 1851, and well represented in older literature, Acne Necrotica now rates only brief mention in major text book of dermatology or dermatopathology with a paucity of journal references in recent years. This presentation seeks to demonstrate that this condition is prevalent, a significant source of chronic patient morbidity, but significantly unrecognised due to challenging barriers to both clinical and histopathologic diagnosis. We address these diagnostic impediments, discuss management options and further reflect on the etio-pathology of this confounding condition.

Reference

Investigating GP experience - Barriers and facilitators to the management and referral of acne patients and the prescription of Isotretinoin
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Background: Acne Vulgaris is one of the most common dermatological presentations in General practice. Acne scarring is a known major consequence of late referrals for Isotretinoin treatment as the drug is effective in preventing scarring if started early. This project will investigate the barriers and facilitators of referral to dermatologists from GPs for Isotretinoin treatment in regional and rural areas.

Methods: Twenty semi-structured telephone interviews were conducted with GPs from Metropolitan, Regional, and Rural area in the Illawarra Shoalhaven region. The interviews were audio-taped and transcribed verbatim. Interviews were then analyzed by three independent researchers using a constant comparative analysis framework.

Results: Three core themes of participants’ responses were identified.

Theme 1: The GP approach to acne presentation. As part of this theme it became apparent that some participants had a comprehensive holistic approach to acne patients, whereas others had more of a unidimensional approach.

Theme 2: Patient factors contributed to acne treatment approaches. These factors included recognizing scarring as a major complication of acne, recognizing patient psychological distress, and prior treatment received.

Theme 3: GP participants believed that shared goals with their dermatologist colleagues were very important. They also believed that ready access to dermatologists would help to better manage the condition and prevent complications, mainly acne scarring and its long term psychological effect on patients.

Conclusions: The study found that there were some limitations in the way which GPs were managing acne treatment in community settings. Based on study findings it could be suggested that a number of strategies could be incorporated to help address these limitations. These strategies could include professional development education regarding acne presentations, early recognition of acne scarring, a more collaborative relationship between GPs and specialist dermatologists, a dermatological telehealth consultation especially in regional and rural environment.

The skin in systemic disease
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Antinuclear antibody (ANA) remains the best screening test, while DS-DNA has prognostic value for the risk of renal disease. Anti-Histone antibodies are associated with Drug-induced LE, SSc/SSB are associated with Sjogren's syndrome, Neonatal LE and SLE. Sm is associated with SLE, RNP with Mixed CTD, anti-Centromere with CREST Syndrome, Scl70 with Systemic sclerosis, and tRNA synthetases (e.g., Jo-1) with dermatomyositis.

Antineutrophil cytoplasmic (ANCA) testing can be helpful in a number of disease states. Proteinase 3 (PR3)/c (cytoplasmic) ANCA is positive in 80-90% of patients with granulomatosis with angiitis (Wegener's granulomatosis). Myeloperoxidase (MPO): p (perinuclear) ANCA is present in 70-90% of patients with Churg-Strauss Syndrome and 80-90% of patients with Microscopic polyangiitis. Diagnostic Criteria for granulomatosis with angiitis (Wegener's granulomatosis) (2/4 required) include nasal or oral ulceration, or purulent or bloody nasal discharge, abnormal chest radiograph showing the presence of nodules, fixed infiltrates, or cavities, microhematuria (>5 red blood cells per high power field) or red cell casts in urine sediment, and granulomatous inflammation on biopsy.
Histologic changes showing granulomatous inflammation within the wall of an artery or in the perivascular or extravascular area (artery or arteriole). The presence of any 2 or more criteria yields a sensitivity of 88.2% and a specificity of 92.0%.

The clinical impact of molecular genetics in dermatology
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New DNA sequencing technologies are having a huge impact on diagnosis, prescribing, and treatment in dermatology. For inherited skin diseases, traditional diagnostic methods of skin microscopy, immunohistochemistry, genetic linkage and candidate gene analysis are rapidly being superseded by next generation sequencing (whole genome sequencing, whole exome sequencing, and targeted gene panels). This technology is becoming faster, more widely available, and cheaper – and is rapidly becoming a first line diagnostic approach in many labs. This presentation will outline some of the practical applications of next generation sequencing to demonstrate its clinical value and utility for patients not only for rare skin diseases, but also for more everyday scenarios in dermatology. Improvements are also happening in therapy – better drug prescribing in the clinic based on knowledge of personal genomics, as well as innovative treatments for the genodermatoses with clinical trials of cell and gene therapy, and re-purposing of some drugs to benefit skin disease. This presentation will give an update on the impact of new DNA data for the dermatologist, as well as the current status and outcomes of clinical trials for inherited skin diseases. Finally, there is much excitement over new therapeutic developments such as gene editing, which will also be introduced and discussed. Collectively, the clinical impact of molecular genetics is starting to deliver on personalised or precision medicine, as well as bearing witness to major advances in the field of dermatology. Improvements in diagnostic accuracy, better genetic counselling, the application of DNA-based prenatal testing, and purposeful translational medicine.

References

Epidermal barrier functions in progressive macular hypomelanosis in Fitzpatrick Type IV/V skin – A preliminary study
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Introduction: Progressive Macular Hypomelanosis (PMH) is a common acquired pigmented disorder best appreciated on darker skin. Literature shows that histological and ultrastructural features differs significantly from normal skin with PMH lesions showing decreased epidermal melanin and less melanized, aggregated melanosomes instead of single, mature melanosomes in type V/VI skin.

As skin physiology and epidermal permeability barrier function vary with skin pigmentation, this study was aimed at finding whether epidermal barrier function of PMH differ from that of normal skin.

Methodology: 10 volunteers clinically diagnosed with PMH with mean age 25.9 yrs and a sex ratio 1:1 were recruited for this cross sectional case control analytical study. The skin surface pH, SC hydration, melanin/erythema index and transepidermal water loss (TEWL) were measured by respective probes connected to a Courage-Khazaka device. SC integrity was determined by measuring the TEWL following 5M blender tape application. The barrier recovery rate was assessed at 24 h following barrier disruption by repeated tape stripping. Results were analyzed using paired t test.

Results: Both melanin and erythema index were significantly low in PMH lesions compared to adjacent non-lesional skin. However, skin pH, stratum corneum hydration, basal TEWL, SC integrity and barrier recovery did not differ significantly from that of normal skin.

Conclusion: Despite significantly low melanin content, skin barrier functions seem unchanged in PMH.

Making sense of acquired macular hyperpigmentation of uncertain aetiology
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Macular pigmentation of the skin without an identifiable cause (macular pigmentation of uncertain aetiology/
Mastocytosis: A case series of 107 patients and their treatment responses
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Background: Mastocytosis is classified by the World Health Organisation (WHO) into two categories: cutaneous mastocytosis and systemic mastocytosis (SM). The epidemiology of mastocytosis is unknown, however diagnoses are increasing with the introduction of mast cell tryptase as a screening tool.

Objectives: To establish the epidemiology of mastocytosis at the Royal Melbourne Hospital (RMH). To describe and compare the clinical, laboratory and management features of urticaria pigmentosa (UP) and indolent (ISM).

Methods: A retrospective review of 107 adults with mastocytosis seen at RMH between 1995 and 2015 using disease subcategorisation based on the WHO proposal.

Results: The most common subtype of mastocytosis was UP (n = 54, 50.5%), followed by ISM (n = 50, 46.7%), aggressive (ASM) (n = 2, 1.9%) and with associated clonal haematologic non-mast cell lineage disease (SM-AHNMD) (n = 1, 0.9%). Diarrhoea was prevalent in 54 (68.0%) of ISM patients but only 24 (44.4%) of UP patients (p = 0.02). The median level of tryptase at presentation was significantly higher for those diagnosed with ISM [58.5 (25.5–69.0)] compared to UP [10.0 (6.0–20.0)], (p value < 0.001). c-KIT mutation was positive in 45 (40.2%) patients overall; with significantly more of those with ISM (n = 54, 68.0%) having a mutation compared to UP (n = 7, 15.0%) (p < 0.001). Citizine was the treatment of choice (n = 88, 82.2%), followed by monteleukast (n = 40, 57.4%), fexofenadine (n = 40, 57.2%) and phototherapy (n = 51, 29.0%).

Conclusion: This study provides pertinent information on progression of disease from UP to ISM and management options for mastocytosis.

Clinical trials for inherited skin diseases: Making therapeutic progress
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Discovering the molecular basis of inherited skin diseases represents the first step in being able to improve patient benefits – by establishing accurate diagnoses, understand disease pathophysiology, create laboratory or animal models of the disease, and to test innovative treatments in clinical trials. Sometimes, established drugs can be re-purposed for certain conditions, but other times translational research requires the development of novel cell, gene, protein and small molecule therapies. This presentation will recount what is happening in early phase clinical trials, mainly using the disease epidermolysis bullosa (EB) as a paradigm. Completed clinical trials have been reported for local and systemic use of allogeneic fibroblasts and mesenchymal stromal cells; and ex vivo gene therapeutic targeting of keratinocytes, fibroblasts or skin composites, are currently nearing completion. Bone marrow transplantation has heralded a new era of understanding the skin-bone marrow repair axis, with specific cell populations and molecular recruitment pathways now starting to emerge. Further innovative approaches such as gene editing are also getting closer to the bedside, with the real prospect of being able to improve many currently intractable disorders. Many of the lessons learned from these clinical trials in rare diseases such as EB will also be relevant to improving the future management of other more common scenarios with impaired wound healing, including chronic ulcers and burns.

Hypertrichosis cubiti: A case report and literature review
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Hypertrichosis cubiti, also known as hairy elbows syndrome, is an uncommon type of congenital hypertrichosis.
with long vellus hair in the elbow area. There are only 50 cases reported in the literature since 1970, with a variable spectrum of associated phenotypic features. The mode of inheritance is unclear, with reports suggesting either an autosomal recessive, or autosomal dominant form with variable penetrance and expression, or a spontaneous mutation. Possible links to some syndromes such as Weill-Marchesani Syndrome and Wiedemann-Steiner Syndrome have been suggested. Sporadic cases with no reported phenotypic abnormalities have also been reported. This is a case of a 4 year old girl with normal stature and a negative family history. The literature on this subject is reviewed and management suggestions are provided.

References

Granular parakeratosis induced by benzalkonium chloride exposure from bath oils and laundry rinse aids
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Benzalkonium chloride (BAK) is a quaternary ammonium cationic detergent, used as a skin disinfectant and also a sanitising agent in a number of household and industrial cleaners. Multiple studies have reported the potential for BAK to act as a major skin irritant. We present a case series of six children who presented with granular parakeratosis, all with a history of BAK exposure. Four of these patients were exposed via their clothing, following the addition of either DettolTM or CanestenTM rinse solution to the household washing machine. Two of the patients had BAK exposure through a post-wash rinse cycle to the household washing machine. Each patient presented with a brightly erythematous tender eruption with associated superficial desquamation, primarily distributed around the neck and flexural areas, especially the axillae and groin. This eruption progressed from the flexures with an annular morphology, and during resolution the skin became dry, brown and scaly. Clinically and histologically this was in keeping with granular parakeratosis, with histology typically showing parakeratosis with retention of keratohyaline granules and a superficial predominately lymphocytic infiltrate. Following cessation of BAK exposure and supportive care with emollients, each patient’s eruption resolved over the following 5–4 weeks. Whilst topical steroids were helpful for alleviating pruritus in these patients, they did not seem to expedite resolution. We discuss the case series of these patients, along with a review of the literature regarding BAK as a causative agent in irritant contact dermatitis.

Phenotypic heterogeneity in a family with dystrophic epidermolysis bullosa: A genotypic variation?
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Dystrophic epidermolysis bullosa (DEB) is either a dominant or recessive blistering disease due to one or two mutations in the COL7A1 gene, respectively. In this pedigree, the proband’s maternal family had dominant DEB for 5 generations, displaying only dystrophic toenails and minor blistering of the lower legs. In contrast, the proband and his brother demonstrated extensive blistering since birth. The older brother was more severely affected with pseudosyndactyly of fingers and toes, anonychia, oesophageal strictures and growth retardation.

A skin biopsy showed a sub-epidermal blister with reduced intensity of collagen VII. Sequencing of the 118 exons of COL7A1 revealed a single dominant heterozygous mutation c.6698G>A (p.Gly2233Asp) in exon 84 in the two siblings and in all tested affected family members.

Why, however, was there marked intra-familial phenotypic heterogeneity? Detailed analyses of the unaffected father’s COL7A1 gene lead to the identification of a novel deep recessive mutation of intron 19 in the heterozygous state in the father’s and his sons’ genomic DNA. Persistence of some normal splicing from the mutated paternal allele is predicted to allow the synthesis of only 25% to 32% of normal COL7A1 transcripts in fibroblasts and keratinocytes, respectively. This is likely insufficient to form functional anchoring fibrils in the presence of the dominant mutated protein.

In conclusion, the transmission of a dominant and a recessive mutation is the underlying cause for phenotype aggravation between parents and their offspring in this family. This is important for genetic counselling and prognosis.

An assessment of Australian general practitioners’ knowledge about use of topical corticosteroids in paediatric atopic dermatitis
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Introduction: Parents frequently state that information from general practitioners is a significant factor in TCS-phobia.

Method: 258 Australian general practitioners (GPs) were surveyed through 5 separate continuing professional develop-
opment (CPD) interactions: a web-based education module and two face-to-face CPD lectures on management of atopic eczema.

Results: Most (66%) strongly agree/agree that lack of treatment compliance is a major reason for treatment failure but most (64%) strongly disagreed/disagreed that this is impossible to prevent.

Two thirds (66%) prescribe TCS one to five times daily. Their information on TCS is most commonly (41%) from GP journals and 50% from GP meetings/conferences. The majority (65%) were taught by a dermatologist as undergraduates but only 58% received such teaching during their fellowship training.

Whilst 47% instruct patients to use TCS until eczema is clear, 41% instruct use for a maximum of 2 weeks of less. Nearly half (40%) recommend to use TCS sparingly or the smallest amount possible and only 59% recommend finger tip unit measurements.

Just under a third (30%) believe cutaneous atrophy is the most common side effect seen in this patient population using TCS and reassuringly 58% indicated there are no side effects when used appropriately.

Conclusion: GP’s realise that treatment compliance with TCS is a problem but not an insurmountable one. GPs are prescribing TCS on a daily basis however a significant number are transmitting excessive risk messages that may in fact be a part of the compliance problem. GP’s need accurate information from dermatologists about appropriate use of TCS.

Fear of topical corticosteroids within Australian atopic dermatitis patients

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Introduction: The fear of topical corticosteroids (TCS) is highly prevalent in patients (and parents of paediatric patients) with atopic dermatitis (AD). We aimed to investigate the fear of topical corticosteroid (TCS) treatment in Australian patients with atopic dermatitis (AD) using a novel questionnaire.

Methods: A novel questionnaire called the “Topical Corticosteroid Phobia (TOPICOP)” was used. The questionnaire comprised of 12 questions based on the patients’ basic demographics as well as their knowledge, beliefs, fears and usage of TCS. Possible responses included “absolutely” (worth 5 points), “to some extent” (2 points), “not really” (1 point), “not at all” (0 point), and “I don’t understand the statement”. AD patients or their parents seen consecutively were asked to complete the questionnaire.

Results: 51 AD subjects completed altogether 612 questions of the TOPICOP questionnaire between August 2014–April 2015; 70.6% were paediatric patients; 74.5% were females and 55.3% were unemployed. The questions with the highest response scores were: “I’m afraid of putting TCS cream on certain zones like eyelids” (mean score = 1.88; median score = 2), “TCS damage your skin” (mean = 1.85; median = 2), and “I stop the TCS treatment as soon as I can” (mean = 1.84; median = 2). Females (mean = 20.2; median = 25.5) scored higher than male subjects (mean = 15.5; median = 17), p = 0.049. Employed subjects had higher scores (mean = 22.2; median = 25) than unemployed subjects (mean = 13.1; median = 15), p < 0.01. No difference was found between adults and parents of paediatric patients.

Conclusions: Female patients and employed subjects had greater fears of using TCS. The fears and knowledge gaps in these patients may lead to poorer treatment concordance.

Carney complex and similar genetic syndromes associated with lentiginosis

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Carney complex, NAME (Naevi, Atrial myxomas, Myxoid neurofibroma, Ephelides), LAMB (Lentigines, Atrial myxomas, Mucocutaneous myxomas, Blue naevi) are a group of related autosomal dominant conditions also referred to as myxoma syndrome. These conditions are caused by mutations in the PRKAR1A gene, and have a worldwide prevalence of less than 750 individuals. While features of the Carney complex may be present at birth, the median age of diagnosis is 20 years. The clinical features and severity of myxoma syndrome differ according to the associated abnormalities, however features may overlap. This case discusses a 6-month old infant born with several small lentigines on the forehead, ink spot lentigines on the trunk and several blue naevi. She was originally referred to dermatology following the progression of a left dorsal foot lesion (angiomyxoma), blue naevi and multiple small lentigines; and subsequently diagnosed with Carney complex. This case outlines the benefit of early diagnosis given the rarity of this condition for surveillance, particularly the various manifestations which also include potential cardiac, endocrine and neurological complications.

Progressive cerebral vasculopathy in PHACE syndrome: Detection and management in the age of propranolol

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Arterial ischemic stroke and a moyamoya-like vasculopathy are established complications of PHACE syndrome.
Whereas the effects of propranolol on cutaneous haemangiomas in PHACE syndrome are well described, its effect on the risk of stroke is unclear.

Two cases of progressive steno-occlusive cerebral arterial disease in children with PHACE syndrome, despite treatment with Propranolol, will be presented. We review the literature relating to stroke and PHACE syndrome. Key considerations in the contemporary management of established and potential cerebral vasculopathy in children with PHACE syndrome will be discussed, as well as implications for future research and management guidelines.

Magnetic resonance imaging and electroencephalography in asymptomatic infants with high-risk-distribution port-wine stain: Review of the role of screening investigations
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Introduction: Infants with high-risk distribution port-wine stain (PWS), who are neurologically asymptomatic, present the dermatologist with the question of whether to screen for Sturge-Weber Syndrome (SWS) with magnetic resonance imaging (MRI). Currently, no consensus exists regarding who to screen, the optimal timing of imaging, the sensitivity of MRI, or the overall benefit in diagnosing intracranial involvement in asymptomatic infants. This presentation discusses the outcomes of a systematic review aimed to examine the role of MRI and electroencephalography (EEG) in asymptomatic infants with high-risk distribution facial port-wine stain, through examination of the costs, risks, impact on management and overall benefits.

Method: A search of MEDLINE, EMBASE and the Cochrane Library was conducted with key search terms. Articles from the last 10 years were analysed. A further 31 articles from earlier years were identified as relevant during the primary analysis.

Results: Currently, there is no available evidence to confirm that early MRI results in better neurodevelopmental outcomes for infants with SWS. Optimal neurodevelopmental outcomes are achieved with early seizure control, which depends on quality education about seizure recognition by a paediatric neurologist, and possibly from exclusion of sub-clinical seizures with adjunctive EEG. Although demonstrating brain involvement on MRI in infants with high-risk PWS may facilitate more judicious counselling and monitoring, given the potential for false negatives, a negative MRI should still necessitate neurological referral for counselling and monitoring. Hence, referral to a paediatric neurologist rather than for MRI, may be more crucial to optimise neurodevelopmental outcomes in patients with high-risk PWS.

Superfine merino wool in the management of childhood atopic dermatitis
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Introduction: Atopic dermatitis (AD) affects one in four children and disease severity can be affected by clothing. Woollen clothing has been traditionally considered as an irritant to be avoided in AD, but there has been limited research to examine this claim. This study examines the effects of superfine merino wool on mild-moderate AD.

Methods: A 12-week randomized assessor-blinded crossover prospective cohort study of 59 patients aged 4 months to 5 years with mild-moderate AD, comparing superfine merino wool ensembles with standard 100% cotton clothing. Participants were assigned to wool or cotton clothing and assessed 5 weekly for 6 weeks, before crossing over to wear the other clothing material for a further 6-week period, with similar 5 weekly reviews. The primary endpoint was the SCORAD after each 6-week period, with ADSI and IDQOL as secondary endpoints to measure AD severity and quality of life.

Results: Overall, compared with baseline, superfine wool ensembles were associated with a reduction in mean SCORAD (-4.4 (95% CI = -6.8, -2.1) at 5 weeks and -7.5 (-10.1, -5.0) at 6 weeks). A similar significant change was observed in ADSI and IDQOL scores for the same period. Conversely, the group that started with wool showed notably an increase in scores when changed over to cotton in the second half of the study.

Conclusion: The findings support a place for superfine merino wool in the management of childhood atopic dermatitis.
Evaluating the Australian baseline series
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Patch-testing is the gold standard for accurate diagnosis of allergic contact dermatitis (ACD) (1). The Australian Baseline Series (ABS) was formulated to include the 60 most common and relevant allergens in our patient population (2). Internationally, multiple baseline series have been formulated to aid patch-testing; these reflect the diverse allergens found in different patient populations, and include the European Baseline Series and North American Contact Dermatitis Group Series (2). Patients are generally patch-tested to a baseline series, and extra series, individual allergens and own contactants depending on clinical history.

We reviewed the effectiveness of the ABS in diagnosing ACD in patients patch-tested in the Occupational Dermatology and Contact Dermatitis clinics at the Skin and Cancer Foundation from 1 January 2012 to 31 December 2014. Data from each clinic were examined separately, and 585 patients were diagnosed with ACD over this period. Overall, testing with the ABS successfully diagnosed 65% of cases of ACD; including 71% in Occupational Dermatology clinic patients and 58% in Contact Dermatitis clinic patients. The most common ABS allergens detected were methylisothiazolinone/methylchloroisothiazolinone.

Many patients are referred to Contact Dermatitis clinic with cheilitis and intra-oral problems. These conditions are often caused by allergens not found in the ABS, e.g. amalgam, mercury, gold and palladium. Fragrances such as lavender were also not detected by the ABS. Patients with oral mucosal problems or fragrance allergy may therefore require testing with additional series. Allergens occurring more frequently may also be considered for inclusion into the ABS at a later date.

References

Contact dermatitis in children
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An increasing prevalence of allergic contact dermatitis (ACD) in children has been reported overseas, caused by greater recognition as well as a rising incidence of allergy (1). Patch testing has proved to be the gold standard for identifying allergens in both children and adults (2). Making an accurate diagnosis enables avoidance of relevant allergens and thus helps to prevent recurrent episodes of ACD.

There have been no studies of patch testing children in Australia. Overseas studies have reported nickel sulfate, potassium dichromate and cobalt chloride to be the most common allergens in children (2).

We reviewed our database with respect to patch test results in children under 17 years from 1995 to 2014. The database includes results from the Occupational Dermatology and Contact Dermatitis clinics at the Skin and Cancer Foundation Inc. We found that 491 children had been patch tested, out of a total population of 9085 patients. The most common diagnosis in children was found to be endogenous eczema, followed by ACD. The hands and face were the most frequent sites of dermatitis. The most common allergens identified were fragrance mix, 4-phenylenediamine base (PPD), ammonium persulfate, toluene-2,5-diamine sulphate, Myroxylon pereira (Balsam of Peru), nickel and colophonium. The multiple handdressing allergens related to the occurrence of ACD in young hairdressing apprentices, as well as cases of children sensitized to PPD through so called “henna” tattoos.

Skin reactions to sunscreens in a Victorian patch-test population: A cross-sectional study
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Australia has one of the highest rates of skin cancer in the world (1). Regular sunscreen use is now a way of life for many Australians. However, as with any topical product, sunscreens may cause irritant and allergic contact dermatitis. Previous research by our group found that irritant reactions to sunscreens were approximately 3-times more common than allergic reactions (2). Preservatives and fragrances caused more allergic reactions than sunscreen chemicals (2). Since this study was published, there have been numerous advances in sunscreen technology, including increasing use of physical UV blockers and combination with chemical blockers; sunscreen nanotechnology including nanoemulsions and nanoparticle titanium dioxide/zinc oxide; and an increase in the number/types of sun-protection factor (SPF)-containing products available. It was therefore timely to update the data around sunscreen reactions.

Over a 9-month period in 2014–2015, 255 patients referred to the Contact Dermatitis and Occupational Dermatology clinics at the Skin and Cancer Foundation, Melbourne, completed a questionnaire regarding sunscreen use.
Respondents indicating skin reactions to sunscreens were patch-tested to our sunscreen series, in addition to other diagnostic allergens. In total, 83/255 respondents (32.8%) reported reactions to sunscreens. Of these, just under a quarter had relevant positive patch-tests to sunscreen constituents. Reactions to excipients were more frequent than to sunscreen chemicals. This study contributes to the existing literature on sunscreen contact dermatitis, and may assist dermatologists to identify potential allergens and irritants in sunscreen-users.

References


Skin contact with a stinging tree needing ICU admission

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The Stinging Tree (Dendrocnide moroides), is a large shrub native to rainforest areas in the northern half of eastern Australia, the Moluccas and Indonesia. While it has attractive heart-shaped leaves and juicy purple fruit, it is definitely one tree to be avoided in the rainforest. It is best known for stinging hairs that cover the whole plant and deliver a potent neurotoxin when touched. It is the most toxic of the Australian species of stinging trees.

Contact with the leaves or twigs cause the hollow, silica-tipped hairs to penetrate the skin. The sting causes an extremely painful stinging sensation that can last for days, weeks, or months, and the injured area becomes covered with small, erythematous lesions joining together to form a large, swollen, oedematous mass. The sting is potent enough to kill humans, dogs, and horses and is infamously agonizing.

We discuss the case of two adults who were severely envenomed after contact with D. moroides in Cairns, North Queensland, requiring intubation and sedation for pain management of their dermatitis.

An open label study assessing the tolerability and efficacy of superfine merino wool fabric in the treatment of atopic dermatitis

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Background: Wool intolerance is widely accepted as a minor criterion in the diagnosis of AD since Hanifin & Rajka (1980) introduced their classification. Despite modifications and newly proposed diagnostic criteria for AD, little to no data exists to determine what specific type of wool is accepted in this criterion.

Contrary to the current data, we believe superfine wool fibres are incorrectly implicated in the diagnostic criteria. Our studies indicate they also have the potential to prevent exacerbations of AD or to even treat AD. As such we wish to propose a modification to the diagnostic criteria, indicating that fabrics constructed of inherently coarse fibres irrespective of their animal, plant or synthetic origin, should be listed as a minor diagnostic criterion in AD.

Methods: An open label, 12-week trial, with 50 participants diagnosed with AD wore superfine-merino wool garments over areas of clinically apparent dermatitis. A 6-week control period was followed by 6-weeks of wearing merino wool garments. Participant’s dermatitis was assessed fortnightly using the Dermatitis Scale Assessment (DSA), SCORing Atopic Dermatitis (SCORAD) index and the Dermatology Life Quality Index (DLQI).

Results: Superfine merino wool fabric was well tolerated in all patients. The mean composite DSA, SCORAD, SCORAD extent and DLQI improvements were all statistically significant.

Conclusions: Superfine merino wool fabric has a positive therapeutic influence in adults with chronic AD. The improvement in AD symptoms and signs were statistically significant. The minor diagnostic criteria for AD should be modified to state coarse fabric intolerance not wool intolerance.

Infectious Disease Symposium

Infections and infestations

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Pthirus (Phthirus) pubis (the pubic or crab louse), Pediculus humanus capitis (the head louse) and P. humanus corporis (the body louse) are common human ectoparasites. Their eggs (nits) are found attached to hairs (or in the case of body lice, to fibers of clothing). Nits on the eyelashes are usually the result of crab louse infestation. Crab lice can also infest the scalp. Signor, et al. Arch Dermatol 125:133, 1989. Body lice transmit typhus, trench fever and relapsing fever.

Head lice are hyperendemic in many areas. Classrooms remain the major focus for spread of the infestation. Speare B, Buettner PG. Head lice in pupils of a primary school in Australia and implications for control. Int J Dermatol 1999; 38:285–90.

Chromoblastomycosis in Australia: A historical perspective

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Aims: To study the histological features of a large series of patients with chromoblastomycosis to ascertain whether the earlier presentation of patients with this disease has resulted in any changes in the histological features that were recorded over 60 years ago.

Methods: A key word search of the database of our pathology laboratory over the period 1 January 2004 to 30 June 2012 was carried out for cases reported as chromoblastomycosis.

Results: Seventy cases of chromoblastomycosis were reported over this period. A further four cases of subcutaneous chromomycosis were found in this search. They were excluded from the study because of their different aetiopathogenesis. Key histological features such as the presence of pseudoepitheliomatous hyperplasia, granulomas, suppurative granulomas, suppuration and the presence of brown (dematiaceous) sclerotic bodies were evaluated. Fewer cases showed pseudoepitheliomatous hyperplasia than in earlier studies. Sclerotic bodies were found easily in H&E sections in all cases, averting the need for any special stains. Only ten cases were submitted for culture; six grew Cladophialophora carioni and two Fonseca pedrosi.

Conclusions: Chromoblastomycosis has changed little, histologically, since the original descriptions over 60 years ago, despite its much earlier clinical presentation these days. Pseudoepitheliomatous hyperplasia was seen in 77.1% of our cases, compared to its almost universal presence in cases reported many years ago that often presented after many years with the disease.
immunosuppression. Previous phase 2 studies showed that oral nicotinamide reduced actinic keratoses (AKs). The Phase 3 double-blinded ONTRAC study (Oral Nicotinamide To Reduce Actinic Cancer) recruited 386 immune competent participants with at least 2 nonmelanoma skin cancers NMSC (basal cell carcinoma, BCC and squamous cell carcinoma, SCC) in the past 5 years. Participants were randomised to receive oral nicotinamide 500 mg or placebo twice daily for 12 months. The primary endpoint was new histologically confirmed within 12 months. Skin reviews were performed 5 monthly for 12 months and for 6 months post-intervention. Secondary endpoints included numbers of AKs and new SCC and BCC to 12 months.

Participants in the placebo arm developed an average of 2.4 new NMSC in 12 months, compared to 1.8 new NMSC in those taking nicotinamide [estimated relative rate reduction (RRR) 0.25 (95% CI: 0.04–0.38, p = 0.05) adjusting for centre and number of NMSCs in the previous 5 years]. Similar reductions were seen in BCC (RRR = 0.2, 95% CI: –0.06 to 0.39, p = 0.1) and SCC (RRR = 0.3, 95% CI: 0–0.51, p = 0.05). AK counts were significantly reduced by 11% at 5 months, 14% at 6 months, 20% at 9 months and 13% at 12 months (all p < 0.01).

Nicotinamide was well-tolerated and reduced new NMSC in a high-risk patient cohort. As an inexpensive supplement, nicotinamide now provides an opportunity for skin cancer chemoprevention in our daily management of high risk patients.

Meta-analysis: Interventions for preventing non-melanoma skin cancers (NMSC) in patients with one or more previous NMSC
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Introduction: In light of recently published phase 3 randomised controlled trial (RCT) on efficacy of nicotinamide in preventing non melanoma skin cancer (NMSC), we are conducting a meta-analysis on interventions used to prevent NMSC in patients with one or more previous NMSC to systematically summarise various interventions available in prevention of new NMSC.

Methods: MEDLINE, EMBASE, Cochrane Database of Systematic Reviews, Cochrane Skin Group Specialised Register, and Cochrane Register of Controlled Trials were searched without language restrictions. All RCTs of interventions in preventing new NMSC in high risk patients were included. Exclusion criteria included RCTs on patients with previous non-invasive NMSC such as actinic keratosis, patients with genetic disorders, previous arsenic toxicity or organs transplant recipients. Two authors independently extracted data.

Results: Interventions such as beta carotene, nicotinamide (Vitamin B3), selenium (Vitamin E), 2-difluoromethylornithine (DFMO), facial resurfacing, low fat diet, and retinoi were identified. Among four retinoid RCTs, the number of participants in each trial ranged from 525 to 2297 patients, and all trials had more than 170 patients in each arm. All types of retinoid (retinol, isotretinoin, tretinoin) were not associated with any reduction in NMSC.

Limitations: Trial qualities varied as a few trials had unclear allocation concealment. Heterogeneity in some comparisons remained unexplained by metaregression analyses.

Conclusion: This meta-analytic review aims to highlight various chemoprevention that are available for patients with previous history NMSC in preventing new NMSC and also alerts clinicians of more scientifically evident interventions available in preventing NMSC in high risk group.

Generation why: Sun-protective behaviours of Australian medical students
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Introduction: Cumulative sun exposure and sunburns from childhood to early adulthood are major risk factors for developing skin cancers. This cross-sectional study aimed to study the sun-protective behaviours of Australian medical students during both everyday outdoor activities and while travelling for leisure.

Method: An online questionnaire assessed the sun-protective attitudes and behaviours of Australian medical students. A unique link to the questionnaire was distributed by the Australian Medical Association and the Australian Medical Students’ Association via email and Facebook.

Results: There were 1586 respondents; 65% were female, 92% were aged between 18 and 50 years old, and 89% were domestic students. Nearly two thirds of respondents (65%) had been sunburnt at least once during the past year. 49% had been burnt while travelling with 48% spending four or more hours outside per day while travelling. 28% of respondents spend time in the sun with the intention of tanning, despite 95% acknowledging it may increase their risk of skin cancer. The use of sunscreen was the most popular sun-protective measure with 70% using it often or always during the summer months. However, there were deficiencies in its correct use with only 19% of respondents re-applying every 2 h.

Conclusion: Many medical students are being sunburnt or choosing to tan despite their level of education and previous exposure to public health campaigns. Targeted messaging towards Australia’s younger generation is needed to improve compliance with sun-protective behaviours, with an emphasis on tanning, sunscreen use, and sun-safety while travelling.
Introduction: Basal cell carcinoma (BCC) is the commonest cancer and incidence continues to rise in Australia. Surgery is the definitive treatment for BCC but increasingly, non-invasive options have become available. Correspondingly, there has been a rise in the use of non-invasive imaging to diagnose BCC without biopsy. Additionally, depths of BCC have been investigated but with variable results.

Rates of cure of BCC are determined by various factors but it remains unclear whether depth is a factor.

Aims: 1) To determine the significance of depth in BCC treatment based on current literature 2) To determine the accuracy of OCT in the measurement of BCC depth

Method: In the first part of the study, a systematic review of the literature was performed using EMBASE and Medline. Secondly, 168 BCC-like lesions on clinical and dermoscopic examination were consecutively recruited over 12 months. OCT images and 2 mm punch biopsies of all lesions were taken. Interpretation of the OCT images were performed by a blinded investigator. Where BCC was diagnosed, OCT depth was measured. OCT depths were compared to histology using Pearson’s coefficient.

Results: There is conflicting evidence on the importance of depth as a predictor of therapeutic response. Depth is a significant factor in most studies but there is emerging evidence that amongst thin tumours (definition varies) of the superficial subtype, good response is achievable regardless of depth.

With relevance to the literature review, there was excellent OCT-pathology correlation amongst BCC tumours <0.4 mm and good correlation for tumours <1.0 mm.

References

The first 48 months of an Australian renal and liver organ transplant dermatology database

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Background: Solid organ transplant recipients (SOTRs) have an increased non-melanoma skin cancer (NMSC) incidence of up to 65 times that of non-transplant patients, and more aggressive skin cancer variants (1,2,3). This is an increasingly important issue given the increasing number of transplants and improved recipient survival. There have been few studies based in the Australian cohort, a population unique for its sun-loving lifestyle and high UV radiation.

Methods: 297 SOTRs attended the Royal Prince Alfred Hospital transplant dermatology clinic from August 2011 to August 2015. Data obtained prospectively from patients was collated in a Filemaker Pro database.

Results: 182 renal and 115 liver transplant patients are included in the database. Since August 2011, there were 251 histopathology proven SCCs, 162 BCCs, 11 keratoacanthomas and 5 melanomas. The overall SCC:BCC ratio was 1.6:1.

The SCC:BCC ratio for renal transplant patients is 1.7:1 and for liver transplant patients is 1.5:1. The mean SCC tumour accrual (SCCs/patient/year) was similar for liver and renal transplant patients (0.35 and 0.33/patient/year). The mean BCC tumour accrual (BCCs/patient/year) was also similar for liver and renal transplant patients (0.25 and 0.20/patient/year). More than 50% of patients currently on azathioprine or cyclosporine have developed a NMSC since transplant.

Conclusion: SOTRs have a high incidence of non-melanoma skin cancers, particularly SCCs. Liver and renal transplant recipients have similar tumour accrual rate. Carcinogenic immunosuppressant’s such as azathioprine and cyclosporine, are associated with a greater risk of NMSC. Further research in the Australian SOTR population will ensure optimal evidence-based practice.

References
First-in-human phase 1 safety study of BLZ-100 in subjects with skin cancer

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In Australia, skin cancers compromise 80% of all cancer diagnoses. Annually, there are approximately one million presentations to primary health care physicians for skin cancer assessment. Roughly half will require surgical management, while the other half can be managed with less invasive treatment ranging from topical 5-Flurouracil and imiquimod to C&C or even PITT.

Surgical excision is primarily focused at complete tumour extraction while providing the best cosmetic outcome. Guidelines currently exist to provide surgeons with recommended surgical margins when planning tumour removal. Whilst these margins aim for complete cancer clearance, there still exists a chance of small malignant deposits remaining beyond these margins leading to recurrence of disease. Currently, the placement of their margins relies on the eye of the surgeon.

No imaging modalities exist for real time intraoperative visualization of skin cancers. It is possible that by highlighting cancer tissue surgeons could visualize all tumour deposits ensuring adequate margins are obtained.

BLZ-100 is an intraoperative, fluorescent imaging agent designed to specifically label malignant tissue and enable more complete surgical resection of tumour tissue. BLZ-100 achieves tumour targeting through the peptide portion of the molecule, a modified chlorotoxin (CTX) peptide, and its imaging properties from the coupled near-infrared fluorescent dye, indocyanine green.

This first-in-human, phase 1 dose escalation and expansion study in subjects with both non-melanoma and melanoma skin cancers demonstrates both the safety and efficacy of BLZ-100 as a “tumour paint”.

Dermatologists are among the most inventive physicians, attracted to the specialty by complex systemic associations, a breadth of etiologic mechanisms, and an opportunity to innovate in the care of our patients. Although the creative practice of medicine on a patient-by-patient basis brings great professional fulfillment, the opportunity to magnify the impact of one’s creative instincts comes to life when considering invention in your medical career. Dermatologists have a long history of powerful invention for the good of their patients and of society. We will review the rationale for, logistics of, and outcomes associated with inventing in a medical career. Specific technologies will be highlighted as a means of demonstrating the breadth of opportunity for invention and commercialization within the field of Dermatology.

Managing primary lymphoedema and lymphatic malformations

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Lymphoedema is very much the domain of the dermatologist. A failure of lymph drainage results in a build up of proteins, fat, immune cells as well as fluid predominantly in the skin and subcutis. Lymphoedema manifests with tissue swelling, skin changes and infection, particularly cellulitis which is often recurrent.

Primary lymphoedema is caused by an intrinsic, presumed genetic, fault in lymph drainage whereas secondary lymphoedema is due to an identifiable extrinsic pathology damaging lymph-conducting pathways (lymph vessels or lymph nodes). Most lymphoedema is considered secondary to damage to lymph drainage routes from cancer treatment, accidental injury or infection e.g. filariasis but the role of a constitutive predisposition to secondary lymphoedema is probably underestimated.

In the last 5 years a number of causal genes have been discovered for primary lymphoedema. This has changed the clinical approach to diagnosing primary lymphoedema. No longer are terms such as lymphoedema congenital, praecox and tarda sufficient. More detailed phenotyping is used to classify categories of lymphoedema and, where known, genotyping is the definitive clinical test 1. Using a developed algorithm primary lymphoedema is divided into a) known syndromes where lymphoedema is not the dominant feature e.g. Turner’s; b) cases with systemic involvement e.g. pleural or pericardial effusions, intestinal lymphangiectasia or chylous reflux; c) cases with birthmarks and overgrowth suggesting a mosaic process; d) congenital lymphoedema e.g. Milroy; and e) late onset lymphoedema e.g lymphoedema-distichiasis. Investigations
such as lymphoscintigraphy can help provide a more accurate phenotype and therefore diagnosis.

As yet this has not changed treatment in the majority of cases, which is still physically based using the principles of exercise and compression to encourage better lymph flow. However, molecular treatments are on the horizon such as the use of mTOR inhibitors for PIK3CA mutations.

Reference


Genetic skin diseases: Can you make a diagnosis?
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One of the important tasks for a dermatologist is to be able to make an accurate diagnosis. This clinical goal is particularly challenging in patients with genetic skin diseases that are often rare and whose condition is perhaps only a vague memory from residency training and Fellowship exam revision. Recognising specific conditions has important implications for genetic counselling and in planning optimal management for affected individuals and families. Fortunately, over the last decade an increasing number of genodermatoses have become better understood, both clinically and in terms of their skin and molecular pathology. This presentation will show up to 50 examples of inherited skin diseases – illustrated in quiz format in blocks of 10 cases – as a means of evaluating the audience’s diagnostic skills. Challenging, indeed, but can you make a correct diagnosis?

Tumour board for registrars
C. Otley
Mayo Clinic, Rochester, Minnesota, United States

In this session, we will engage in an interactive case-based discussion regarding the variety of management strategies for skin cancers. This talk will complement earlier talks in the meeting, examining the pros and cons of various treatment strategies for skin cancers ranging from mild to life-threatening. Please come prepared for lots of interaction and fun. Attendees are welcome to bring challenging cases for discussion as well.

Biopsy of pigmented lesions
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Skin biopsy is one of the most common and important procedures performed by dermatologists and histological examination of a biopsy specimen may represent the most informative and cost-effective test in all of medicine. Complete excision is the method of choice for suspected melanoma when feasible, as it allows the pathologist to judge symmetry and overall architecture. Partial biopsies can lead to sampling error and an erroneous diagnosis, but may be performed in large lesions where complete excisional biopsy is impractical. The tumor may colonize deep punch biopsy wounds, but there is no evidence that such colonization is associated with a worse prognosis. The greatest limitation of partial biopsies is that they may compromise both diagnostic accuracy and staging. Evaluation of the remaining neoplasm following subsequent excision leads to tumor upstaging in roughly 21% of patients, with 10% subsequently qualifying as candidates for sentinel lymph node biopsy.

Lentigo maligna deserves special mention, as the large size of the lesion often precludes complete excision. Misdiagnosis is common in small specimens because of lack of effacement of rete ridges, areas of regression and collision with non-melanocytic pigmented lesions such as benign lentigines and pigmented actinic keratosis. Punch biopsy specimens are associated with a high rate of false-negative results. A broad thin shave biopsy resembling properly cut prosciutto can provide the pathologist with a broad view of the junctional melanocytic proliferation without creating a deep wound. An excellent alternative may be multiple small shave biopsies that sample every color and morphology within the lesion. These can all be placed in a single specimen bottle to maximize the chance of correct diagnosis and minimize cost. An elliptical incisional biopsy is an excellent alternative when it can be oriented along a naturally occurring skin crease to hide the resulting scar.

Nevi on volar skin are often shallow, and may be completely removed via saucization. They are often characterized by elongated nests that follow the dermatoglyph furrows. Once removed, they should be bisected perpendicular to the dermatoglyphs to avoid a false appearance of junctional confluen. If you cannot trust your lab to do this, you should do it yourself and indicate that the specimen is already bisected.

Distinguishing lymphoedema from other forms of chronic oedema
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The swollen leg, and particularly the swollen red leg, is a common observation not only in skin clinics but also in medical practice generally. Deciding if chronic oedema is lymphoedema, or not, often challenges the medical practitioner.

All forms of chronic oedema should be considered as a failure of lymph drainage. This is because, contrary to traditional teaching, all tissue fluid is drained predominantly by the lymphatic system. Therefore a build of interstitial fluid occurs either because the lymph drainage is impaired (true lymphoedema) or because lymph load (blood microvascular fluid filtration) is overwhelming the capacity of the lymph drainage. Increased lymph load will occur.
in circumstances of high venous pressure such as heart failure or venous disease, low plasma proteins or inflammation e.g. local dermatitis or infection. However if lymph drainage is adequate oedema should be avoided.

The clinical approach should consider factors that impair lymph drainage and increase lymph load. Reasons for chronic oedema may well be multifactorial. For example in an obese patient both the obesity and immobility will directly impair lymph drainage whereas falling asleep in a chair with legs dependent will increase fluid filtration, because of high venous pressures in the legs, and whole body fluid retention from sleep apnea syndrome.

Clinical pointers that suggest the lymph drainage is primarily at fault are limited improvement with overnight elevation or diuretics, associated recurrent cellulitis and skin changes i.e thickened skin and hyperkeratosis.

Treatment of the swollen limb should seek to limit lymph load, improve lymph drainage and prevent infection.

**Alopecia Symposium**

**Alopecia**

D. Elston

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Hair disorders are common, with more than half of the population affected by pattern alopecia and the prevalence of hirsutism varying significantly by ethnicity. Pattern alopecia relates to increased sensitivity to dihydrotestosterone. Telogen effluvium relates to an alteration in the normal hair cycle, with many hairs shedding synchronously. Alopecia areata represents an inflammatory insult directed against melanocytes in the hair bulb. There is strong evidence that the disease is mediated by Th1 lymphocytes. Polycystic ovarian syndrome represents an insulin-resistance syndrome resulting in excess production of androgens.

A sudden increase in shedding most commonly represents telogen effluvium. Hair thinning is more likely to represent pattern alopecia. Scarring alopecia generally requires a biopsy for diagnosis. Most medically significant hirsutism represents polycystic ovarian syndrome. New onset virilization suggests the possibility of a tumor.

Pattern alopecia in males is treated with oral finasteride, topical minoxidil or both. Pattern alopecia in females is treated with antiandrogens (such as spironolactone), topical minoxidil or both. Alopecia areata may require intraleSIONAL corticosteroid injections, topical immunotherapy, or systemic therapy with agents such as methotrexate. A scalp biopsy is critical to guide therapy in scarring alopecia. Hirsutism may be treated with laser epilation or systemic antiandrogens. Topical eflornithine can slow regrowth of hair.

**Treatment of female pattern hair loss with low dose minoxidil**

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**Background:** The oral antihypertensive minoxidil stimulates hair growth, but its use in the treatment of female pattern hair loss (FPHL) is limited by the potential adverse events of postural hypotension, fluid retention and hypertrichosis. Spironolactone is another antihypertensive used to treat FPHL.

**Method:** To investigate the safety and effectiveness of a single once daily oral capsule containing minoxidil 0.25 mg and spironolactone 25 mg in the treatment of FPHL, women with a Sinclair stage 2–5 FPHL were treated once daily for 12 months. Hair shedding was scored using a 6 point visual analogue scale. Patients were reviewed 5 monthly and blood pressure and side-effects documented. Full blood count, renal function, electrolytes and liver function were monitored at 5 monthly intervals.

**Results:** 100 women were enrolled. Mean age was 48.44 years (range 18–80). Mean hair loss severity at baseline was Sinclair 2.79 (range 1–5). Mean hair shedding score at baseline was 4.82. Mean reduction in hair loss severity score was 0.85 at 6 months and 1.3 at 12 months. Mean reduction in hair shedding score was 2.5 at 6 months and 2.6 at 12 months. Side effects were seen in 8 of women but were generally mild. No patients developed hyperkalaemia or any other blood test abnormality. Six of these women continued treatment and 2 women who developed urticaria discontinued treatment.

**Discussion:** Once daily minoxidil/spironolactone appears to be safe and effective in the treatment of FPHL. Placebo controlled studies to investigate this further are warranted.

**Gene expression in alopecia areata before, during and after active hair loss**

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Publish consent withheld.
Biomedical engineering research in dermatology: The next frontier in clinical translational research

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Since time immemorial, the conventional paradigm in dermatology research has been focused on biological sciences, understanding causes of diseases and develop new treatment modalities. However, it has become more evident that engineering sciences play an integral role in dermatology research to improve patient care. Through application of principles of science/mathematics, engineers can develop innovative solutions to help clinicians address complex dermatological problems in the area of diagnostics, therapeutics as well as preventive dermatology. This talk will discuss some of the promising areas that biomedical engineering can value add to dermatology research and give examples of ongoing research collaboration between National Skin Centre and Nanyang Technological Institute. Specific areas covered include:

1. Diagnostics: Skin Imaging: Which will cover both subsurface and surface skin imaging technologies to diagnose and map out skin cancers in 3D. Technologies to analyse skin composition as well as predict disease patterns will be discussed. Digital Image Analysis: This will highlight the development of computerised digital image analysis to simplify disease scores as well as diagnostics.

2. Bioengineering Novel Therapeutics: Specific examples of smart delivery systems/novel therapeutics will be discussed.

3. Nanotechnology and Dermatology: The promise and potential pitfalls of nanotechnology will be highlighted; knowledge gaps/critical areas of research needed in the field of nanotechnology will also be covered.

It is our belief that dermatologists must widen their scope of collaborative research to work with biomedical engineers. By leveraging the rapidly evolving engineering expertise in these areas, we will be able to change ways dermatological diseases are diagnosed and care delivered, thus transforming care for patients.

Existing nanotechnological applications within dermatology may be broadly classified as diagnostic, therapeutic or cosmetic. They include topical nanoparticle drug delivery systems for dermatological and non-dermatological disease; nanocarriers/nanomulsion systems for emollients and cosmeceuticals; sunscreens; wound and burn care; regenerative medicine; bioimaging; photodynamic therapy; and cosmetic surgery. However, the use of nanomaterials has raised potential concerns including human toxicity, workplace safety and environmental impact. In this context hazards are related to increased reactivity and skin penetration as particle size decreases, generation of reactive oxygen species, nanoparticle accumulation in tissues or in the food chain, and manufacturing impurities. Among the international scientific community there is significant work underway to model potential hazards, and combine them with exposure guidelines (doses) to establish risk.

We provide an overview of existing nanotechnology applications in dermatology, and summarise potential safety concerns. We highlight the latest advances in experimental nanodermatology, including novel nanocarriers for topical delivery of active pharmaceuticals/cosmeceuticals; treatment of malignant melanoma; diagnostic devices such as quantum dots for sentinel lymph node evaluation; and treatment of specific conditions including inflammatory skin disease and scalp disease. Finally, we identify future research opportunities. Nanomaterials offer a promising range of new solutions to old problems. Their applications are of tremendous interest to dermatology, but an evidence-based approach to establishing exposure limits is required.

References


Consumer convenience or community confusion: Technology and lesion directed examination skin cancer programs in pharmacies

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Recently, pharmacy retail chains have offered limited skin cancer screening services. The nature of the fee-for-service program varies to some degree between retailers, however they are based on a digital photo taken in a pharmacy of a patient-identified lesion of concern. These photos are sent off-site for assessment by non-dermatologist medical practitioners. Furthermore, there are increasing number of algorithm based online or app based lesion assessment tools available to the community.
There are potential benefits in opportunistic skin cancer checks and raising community awareness of the need for ongoing screening and sun safety. Recent research (1) indicates that lesion-directed skin cancer screening (“LDS”) may be of similar effectiveness to total body examination (“TBE”) when conducted by a dermatologist, provided patients with at least one identified suspicious lesion subsequently undergo a TBE. If no suspicious lesion is identified, LDS could be convenient.

However, there are significant risks to community from these programs due to: the unregulated and variability of service providers and technology; the limited clinical context available to the doctor remotely viewing images; risk of false reassurance from negative results; reliance on population education and awareness of features of skin cancer for patient identification of lesions; and lost opportunity for a risk-assessed history and TBE by a medical practitioner.

The authors will examine available evidence, ethical and legal issues around these LDS programs. We contend that patient safety should take precedence over convenience and this programs put individuals at risk of incorrect, delayed and misdiagnosis.

Reference


Laennec’s melanosis: The first modern, published description of metastatic melanoma
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The honour of first description of metastatic melanoma goes to Rene Theophile Hyacinthe Laennec(RTHL)(1781–1826).

He was not only the astute inventor of the stethoscope but also a careful pathologist making important clinicopathological observations. RTHL described secondary melanoma in 1804 as a medical student.

This report concerns:
1 Laennec’s use of the term melanosis from his classification of anatomical lesions (from his unpublished monograph “ANote on Anatomical Pathology .
2 Laennec’s dispute with Duuyptren (1777–1855) regarding the originality of his classification.
3 His subdivision of melanosis into four types and it’s significance today.

BP230-type bullous pemphigoid (a new disease entity?): A case series and a review of literature
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Introduction: Bullous pemphigoid (BP) is a subepidermal blistering disease predominantly caused by autoantibodies to BP180 and BP230, with BP180 considered the pathogenic autoantibody. Although BP230 autoantibodies have been detected in BP patients, its pathogenic role has been unclear. We present 5 confirmed cases of BP that tested positive exclusively to BP230, but not BP180 autoantibodies.

Methods: The serum of all patients with BP seen at an Australian dermatology clinic from February 2014 had their BP180 and BP250 autoantibodies tested by BP180 and BP230 ELISA (MBL) and BIOCHIP indirect immunofluorescence (EuroImmun).

Results: We identified 5 cases of BP reacting exclusively to BP230 autoantibodies with serum from each patient tested on at least 2 different visits. All patients were female, with an average age of 66.6 years (median 66 years). Three of 5 patients had another autoimmune disorder. All patients suffered pruritus. Three of 5 patients suffered extensive disease (average Bullous Pemphigoid Disease Area Index [BPDAI] activity score 15.2, and BPDAI-pruritus score 9.8
when sera were taken). Four of 5 patients reached remission on minimal therapy, responsive to prednisolone (average initial starting dose approximately 0.5 mg/kg/day) and an adjuvant such as mycophenolate mofetil or doxycycline. No significant Spearman’s rho correlations were found between the patients’ eosinophils count ($p = 0.21$) or the BPDAI ($p = 0.57$) with the BP250 titres on the 12 sera tested.

Conclusions: Patients with BP and exclusively anti-BP250 autoantibodies may present with pruritus and blistering on both the skin and mucosal surfaces. BP250 titres did not correlate with the severity of BP.

A clinical experience in the early arthritis for psoriatic patients (EARP) screening tool: Screening for psoriatic arthritis in dermatology clinic

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Introduction: Psoriatic arthritis (PsA) affects one in four patients with psoriasis. The literature indicates that the prevalence of undiagnosed PsA is 15.5% with potential for joint damage in 50% of patients within 2 years of symptom onset. Early detection is crucial to improve clinical outcome, placing dermatologists in a unique position to detect PsA and facilitate timely treatment. Current literature implicates dermatologists are poor at diagnosing PsA. There is a demonstrable need for an efficient and robust screening tool which can be implemented in the clinical setting$^3$. In this study we establish the applicability and utility of the Early Arthritis for Psoriatic Patients (EARP) questionnaire in dermatology clinic.

Method: A retrospective analysis of 103 consecutive patients with psoriasis screened for PsA via the EARP questionnaire in the course of routine clinic review. Patients were scored between 0 and 10 with scores 3 and above considered for rheumatology referral, and 5 the definitive threshold for referral.

Results: Fifteen (14.6%) participants had a pre-existing diagnosis of psoriatic arthritis or had previously seen a rheumatologist.

Sixteen (15.5%) patients qualified for rheumatology referral, of these; eleven (10.7%) declined referral, five (4.9%) were reviewed by a rheumatologist of which two (1.9%) were diagnosed with PsA, and three (2.9%) were given an alternative diagnosis (two - osteoarthritis; one - nil formal diagnosis).

Reference


Validation of outcome measures for pemphigus: A systematic review using the COSMIN criteria

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Introduction: Pemphigus is rare autoimmune blistering disease. Due to its rarity, it is essential to be able to collate data from clinical trials using standardised outcome measures. However, there have been over 100 different scoring systems being used to evaluate pemphigus outcomes.

Aims: To systematically evaluate the quality of validation studies on pemphigus outcome measures.

Methods: A Medline and PubMed database search using the keywords “outcome measure” AND “pemphigus” was conducted in July 2015 and relevant articles selected. These articles were then critiqued using the COSMIN criteria, a well-known outcome measures validation checklist. For every validation study, each of the ten measurement properties in the COSMIN checklist was evaluated and given a final rating on a four-point scale with regards to the level of evidence provided that the methodological quality was adequate. This was done by 2 independent reviewers (EH and CZ) and any discrepancies resolved by senior reviewer, (DM).

Results: Of a total of 615 articles found, there were only 9 validation studies, for each paper, we evaluated a total of 107 questions across the 10 measurement properties. There were two high quality studies which assessed the reliability and convergent validity of the PDAI and ABSIS. Across all studies, validity was assessed to a poor/fair quality.

Conclusions: Most of the previously proposed outcome measures for pemphigus were never properly validated. The ones with the highest quality validation are the PDAI and ABSIS, with the PDAI having the highest inter-rater reliability.

Novel and recurrent keratin 5 and keratin 14 mutations in 58 families with epidermolysis bullosa simplex in Australia

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Background: Epidermolysis Bullosa Simplex (EBS) is a rare heritable skin fragility disorder, most commonly
caused by mutations in the genes coding for keratin 5 (KRT5) and keratin 14 (KRT14). EBS shows clinical heterogeneity with localised, intermediate and generalised severe forms, which tend to correlate with the location and nature of mutation inherited.

**Objectives:** To identify the KRT5 and KRT14 mutations in patients diagnosed with EBS in Australia, and correlate the genotype to the phenotype in patients with novel mutations.

**Methods:** Australian patients with EBS and mutations in the KRT5 and KRT14 were recruited from the Australian National Diagnostic Laboratory Database and the Australian EB Registry. The genotypes and phenotypes of those patients with novel mutations were reviewed in detail.

**Results:** We identified 51 different mutations in the KRT5 and KRT14 genes within 58 pedigrees. 11 of these mutations from 9 pedigrees have not been published previously. We also identified a rare case of co-dominant mutation in one family. Keratin mutations were found to cause EBS in 75% of genetically screened pedigrees.

**Conclusions:** There are a variety of mutations in KRT5 and KRT14 in the Australian population known to cause EBS, and the genotype phenotype correlation seen in Australian EBS population highlights the importance of location and nature of mutation inherited in determining the severity of disease. This study adds to the growing database of known keratin mutations causing EBS.

**A single-institution experience of porphyria cutanea tarda (PCT) in Australia:** Case series report and literature review

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**Background:** Porphyria cutanea tarda (PCT) is a metabolic disorder resulting from a deficiency of hepatic enzyme uroporphyrinogen decarboxylase (UROD) (1). PCT patients are at increased risks of hepatocellular carcinoma (2). Mean age of PCT diagnosis was 48 and there was no gender difference (14 males vs. 15 females). 23 patients had iron overload. 6 patients had chronic Hepatitis C infection, 8 abused alcohol, 10 had hereditary haemochromatosis (5 with heterozygous C282Y, 5 with homozygous H63D/C282Y), 4 developed hormonal-therapy-induced PCT. 22/24 patients, who received phlebotomies, achieved good response. Three were treated successfully with Chloroquine or topical steroids only. Nil patient developed hepatocellular carcinoma (HCC).

**Conclusion:** Our study has reinforced phlebotomies as an effective treatment for PCT. Low dose Chloroquine can be used in patients who are contraindicated to phlebotomies. General measures such as alcohol abstinence, UV protection and trauma avoidance are recommended.

**Oral nicotinamide reduces transepidermal water loss: A randomised controlled trial**

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Publish consent withheld.
repeat attacks. Once attacks become recurrent there is very likely to be an underlying lymphatic insufficiency.

Impaired lymph drainage leads to high rates of infection, particularly cellulitis, within the lymphatic basin. In a community-based survey, 29% of those with lymphoedema (64/218) had suffered cellulitis within the previous 12 months, of which 27% (16/64) required admission for intravenous antibiotics with a mean length of stay of 12 days 1.

The afferent lymphatic vasculature provides the major exit route from the skin for soluble antigens and for immunologically active cells (e.g. lymphocytes, dendritic cells and macrophages). It is likely that disturbances in immune cell trafficking compromise tissue immunosurveillance to predispose to infection, but the exact mechanism is not known.

Low-dose prophylactic penicillin, phenoxy methylpenicillin 250 mg twice daily, given for a period of 12 months almost halves the risk of recurrence during the intervention period compared with placebo 2. However, although some level of protection appears to be sustained for several months after the end of prophylactic therapy, this effect is lost by 56 months, a finding that suggests that longer term prophylaxis may be required. Patients with a body mass index (BMI) of 33 or higher, multiple previous episodes of cellulitis or lymphoedema of the leg had a reduced likelihood of a response to prophylaxis.

Management of recurrent cellulitis should consider risk factors and prophylactic antibiotics as well as seek to improve lymph drainage3.

Reference

3. www.thebls.com/cellulitis

Ivermectin 1% Cream, an effective and safe topical treatment of inflammatory lesions of papulopustular rosacea


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Background: Treatments for papulopustular rosacea (PPR) are limited. The objective was to demonstrate the efficacy and safety of once-daily application of ivermectin 1% cream in subjects with moderate to severe PPR.

Methods: Two identical 12-week, randomized, double-blind, parallel group, vehicle controlled studies were conducted with ivermectin 1% cream (IVM 1%) in subjects with moderate to severe PPR. Main efficacy assessments were Investigator’s Global Assessment (IGA) of disease severity and inflammatory lesion counts. Safety assessments included incidence of adverse events (AEs) and local tolerance parameters. Subjects evaluated their rosacea and completed satisfaction and quality of life (QoL) questionnaires.

Results: In both studies, a greater proportion of subjects in the IVM 1% group achieved treatment success (IGA “clear” or “almost clear”): 58.4% and 40.1% vs. 11.6% and 18.8% for vehicle (both p < 0.001), respectively. IVM 1% was superior to vehicle in terms of reduction from baseline in inflammatory lesion counts (76.0% and 75.0% vs. 50.0% for both vehicle groups, respectively). For all endpoints, starting at week 4 and continuing through the end of the study (week 12), IVM 1% was statistically significantly superior (p < 0.001). Fewer subjects treated by IVM 1% reported dermatologic AEs, and a higher proportion of subjects were observed to have no skin dryness or itching compared to vehicle. Significantly more subjects receiving IVM 1% reported having an “excellent” or “good” improvement, along with an improved QoL.

Conclusions: Ivermectin 1% cream was effective and safe in treating inflammatory lesions of papulopustular rosacea.
Comparative efficacy and safety of ivermectin 1% cream and metronidazole 0.75% cream in the novel treatment of papulopustular rosacea: The ATTRACT (assessment of a topical treatment in rosacea – activity, compliance, tolerability) study
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Background: Several therapeutic options are available in papulopustular rosacea. Metronidazole 0.75% cream (MTZ 0.75%) is one of the most frequently prescribed. Well-designed and adequately powered studies comparing new treatments to MTZ 0.75% are required.

Objective: Demonstrate superiority of ivermectin 1% cream (IVM 1%) compared to MTZ 0.75% in moderate to severe papulopustular rosacea.

Methods: Phase 3, investigator-blinded, randomized study. Subjects applied IVM 1% once daily or MTZ 0.75% twice daily over 16 weeks. Efficacy assessments were inflammatory lesion counts and Investigator’s Global Assessment (IGA) (5-grade scale). Subject’s global improvement of rosacea was assessed using a 5-grade self-evaluation questionnaire at week 16. Safety was also assessed.

Results: 962 subjects were randomized (IVM 1% group = 478 and MTZ 0.75% group = 484). At week 16, IVM 1% was significantly superior to MTZ 0.75% in terms of percent reduction from baseline in inflammatory lesion counts (85.0% vs. 73.7%; p < 0.001), observed as early as week 3 (LOCF) and continuing through week 16. Success rate defined as an IGA of 0 (subjects “clear”) or IGA of 1 (subjects “almost clear”) confirmed superiority of IVM 1%; 84.9% vs. 75.4%, respectively (p < 0.001). More subjects applying IVM 1% rated their global improvement as “excellent” or “good,” compared to MTZ 0.75% (85.5% vs. 74.8%). Incidence of adverse events was comparable between groups (32.4% vs. 33.1% of subjects in the IVM 1% and MTZ 0.75% groups, respectively), and local tolerability was better for IVM 1%.

Conclusions: IVM 1% was significantly superior to MTZ 0.75% and achieved high subject satisfaction.

Methotrexate – An expert position statement
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The Australasian Psoriasis Collaborative considered the position of methotrexate (MTX) in the treatment of psoriasis in the Australasian context.

MTX is antiinflammatory, inhibiting 5-aminomimidazole-4-carboxamide ribonucleotide transformylase, and has minimal immunosuppressive effects in low dose.

Prior to starting MTX it is appropriate to measure full blood count, renal and liver function, HbA1c, and non-fasting lipids. Record body mass index, weight, and abdominal circumference. Additional tests in at risk patients may include screening for TB (Quantiferon Gold, CXR), Hepatitis B/C, HIV, and varicella zoster serology.

In uncomplicated patients repeat FBC; at 2 and 4 weeks, then every 3 months. Renal and liver function tests, non-fasting lipids, HbA1c may be repeated every 6–12 months.

Standard dermatological dose is 15–25 mg once per week (range 5–40 mg/week), with no consensus on the need for a test dose, or limitation to a maximum cumulative dose. Consider subcutaneous MTX if poor compliance or GI adverse effects. It takes 4–6 months to fully polyglutamate MTX.

Methotrexate has a low inherent risk of liver toxicity. The majority of treatment emergent liver toxicity is related to underlying metabolic syndrome. A high HbA1c is more predictive of death than a persistently high ALT. Liver biopsies are rarely required. Consider a FibroScan within 6/12, repeated in 1–5 years. Alcohol itself is not contraindicated, but limited to <1–2 standard drinks/day.

Methotrexate can be used in conjunction with most other 2nd line agents.

Safety in pregnancy and lactation has not been established; paternal exposure remains controversial, but is likely safe.

Establishing a multi-disciplinary service in cutaneous lymphoma – Experience at Westmead Hospital
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Cutaneous lymphomas are a rare and heterogeneous group of disorders. Optimal management of these often challenging cases requires expertise in dermatological, haematological and radiation oncological disciplines. The Westmead Hospital Cutaneous Lymphoma Clinic was established in 2008 and has now seen in excess of 170 patients. The workings of the clinic and examples of cases demonstrating the benefit of a multidisciplinary service will be discussed. This model could be adapted to the management of other skin conditions where input from different specialties could benefit and streamline patient care.
Case series: A review of 8 patients with drug-associated systemic lupus erythematosus and positive dsDNA after commencing anti-TNF biologic agents

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Introduction: Biologic agents are utilised in a range of conditions not responsive to other medical therapy. Clinical drug-associated Systemic Lupus Erythematosus (SLE) is a recognised side effect after commencing anti-TNF biologic agents however drug trials report a low rate of occurrence. Current practice guidelines suggest that baseline serology is done prior to commencement of biologic therapy however patients are not routinely subjected to a further screening assessment. Voluntary registries in Australia collate information on patients using biologic agents who choose to be included.

Case series: We studied 8 patients under the care of dermatology and rheumatology who ceased anti-TNF biologic therapy after being diagnosed with clinically significant drug-associated SLE. Patients became symptomatic between 5 and 36 months after initiation of biologic therapy and required up to 4 years for complete clinical and biochemical resolution.

Discussion: There are a number of reasons the rates of anti-TNF biologic associated SLE may be higher than that which is reported in the literature. Registries are voluntary and may not include all patients who have experienced side effects. Not all patients are routinely screened with baseline SLE serology prior to commencement of therapy and symptoms of SLE are non-specific and can be difficult to diagnose. Our recommendation is that clinicians are proactive about undertaking baseline screening, ensure frequent follow up and have a low threshold for further investigation after commencing anti-TNF biologic agents.

The role of reflectance confocal microscopy in correlating the morphologic and molecular consequences of sun exposure

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The molecular landscape of photodamaged skin (PD) contains evolving mutant clones similar to the somatic mutation profile in keratinocyte carcinomas. We investigated the morphologic features of PD and actinic keratosis (AK) within a field of 25cm² from twenty participants with skin phototype I and II using reflectance confocal microscopy (RCM). Our study reveals an overlap in the morphologic changes in the viable epidermis, even disclosing morphologic similarities between PD and grade 1 AK, based on an AK RCM grading system. These morphologic observations in PD and AK may be related to the recent genomic findings in PD. Further to this, we utilised RCM and a minimally invasive miniaturized submillimeter biopsy device to aid in the correlation of morphologic features and molecular consequences of sun exposure. We describe a case study where the microbiopsy device was used in sampling of PD and AK for downstream molecular analysis using non-sun exposed skin as control.

References


Psoriasis patients – Knowledge of comorbidities

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Introduction: It is well established that moderate to severe psoriasis increases cardiovascular (CV) mortality and risk factors including dyslipidaemia, hypertension and diabetes. Recent data has suggested that patients with psoriasis are not aware of these comorbidities. This study aims to demonstrate the extent to which Australian psoriasis patients are aware of the cardiovascular morbidity and mortality associated with psoriasis.

Method: Patients with psoriasis were approached during their usual dermatology appointments and asked to fill out a survey. The questions were based on a survey demonstrated to be reliable in collecting information regarding psoriasis from psoriasis patients. Data was collected regarding patients’ CV co-morbidities as well as their knowledge and awareness of associated conditions.

Results: Interim data included 51 psoriasis patients. Within this group 59% (30/51) were being treated with phototherapy and 50% (20/51) were using biologics. When BMI was calculated 39% (20/51) of the patients were overweight and 55% (18/51) were obese. Regarding CV awareness, 59% (29/49) of patients knew that psoriasis was associated with heart disease and 67% (33/49) were aware that psoriasis was associated with other diseases. Among the patients who were receiving biologics or phototherapy, 58% (28/48) identified that psoriasis was a risk factor for CV disease and 88% (42/48) were aware of the association between psoriasis and mental health conditions. When asked about
sources of information for their psoriasis 77% (39/51) identified their GP, 61% (31/51) stated the internet and 61% (31/51) said their family and friends.

References


Evaluation of the influence of pharmacists and general practitioners on patient perceptions of long-term topical corticosteroid use in Australia

S.D. Smith, L. Farrugia, A. Lee, S. Carter, A. Blaszczynski, G. Fischer

Experiences between the frequency of recounted risk messages from a GP and/or pharmacist. Risk messages include statements such as “Apply TCS sparingly” or “thiny.” and “TCS may cause skin thinning.” There are no significant differences between the frequency of recounted risk messages from GPs vs. pharmacists.

86% of patients report consistently (“Often” or “Always”) receiving one or more messages regarding the benefits of TCS use (e.g. “using TCS is good for inflamed skin”) from a GP and/or pharmacist. Patients recount these messages about TCS benefits being delivered more often by GPs than by pharmacists (p < 0.004). Patients also report feeling more reassured about using TCS by GPs than by pharmacists (p < 0.001). The high rate of consistent “risk” messages from GPs and pharmacists indicates a need for re-education of these groups on the safety of TCS use.

Drug survival of systemic treatment options in the management of adult atopic dermatitis

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Whilst most cases of atopic dermatitis responded to topical therapy, moderate to severe cases often require systemic treatment to achieve adequate disease control. The time to drug discontinuation, or drug survival of these therapies is often limited by multiple side effects and the tendency for them to become ineffective over time.

Our study included 44 adult patients with moderate or severe atopic eczema who were receiving systemic immunosuppressive therapy (cyclosporine, azathioprine, methotrexate and mycophenolate mofetil) through the department of dermatology outpatient clinic at The Royal Melbourne Hospital. Patients were reviewed every 5–6 months for assessment of disease and to record SCORAD, DLQI, flares, side effects and toxicity.

Our final data set consisted of a total of 94 treatment series. When excluding the cases of remission, 59 of these regimens (65%) had been terminated due to side effects, toxicities and non-compliance. The mycophenolate mofetil group demonstrated the greatest success at long-term survival. 61% of patients who tried treatment with mycophenolate mofetil have remained on mycophenolate mofetil thus far, compared with 20%, 10% and 50% for cyclosporine, azathioprine and methotrexate respectively. Only 6 out of 94 cases were ceased secondary to remission.

Our data supports recent trends in management, which have seen an increase in the use of mycophenolate mofetil due to a lower side effect profile.

Our results reaffirm that preventing loss of efficacy and side effects with these treatments is a major area of need. Targeted biological agents, including JAK inhibitors have demonstrated great potential as future therapies.
Patient presentation patterns at the dermatological clinics of three major teaching hospitals in Western Australia

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Background: Dermatological conditions comprise a significant proportion of disease burden in the community. Dermatological disease pattern at the major public hospitals are important for health care planning and dermatological training. In the past 20 years, only a few studies have been conducted to document the epidemiology of dermatological diseases in the region.

Aims: To determine the disease presentation pattern at the dermatological clinics at the three major teaching hospitals of Western Australia.

Methods: Over a six-week period, patients with their first presentation at the dermatological clinics in three Western Australian tertiary hospitals were recorded for basic demographic data and their presenting dermatological condition, as diagnosed by their attending physician.

Results: Over the study period, 182 patients’ diagnoses were recorded. Overall, the most common condition for clinic attendance was malignant tumours (28.6%), followed by benign tumours (15.4%), solar keratoses (8.2%) and psoriasis (5.5%). Out of the malignant tumours, the most common tumour was basal cell carcinoma (14.5%) followed by squamous cell carcinoma (7.1%).

Discussion: The proportions of presentations were compared to a similar prospective study performed in 1992 at the same three hospitals. Some of the differences observed included a rise in the number of malignant and benign tumour presentations, whilst inversely, a fall in the number of psoriasis and leg ulcer presentations. The possible causes for these changing trends are discussed.

Conclusions: Amongst new presentations at dermatology clinics, the most commonly seen conditions are malignant skin tumours followed by benign tumours. The pattern of patient presentation can provide insight into planning and improving future dermatology services.

Livedo vasculopathy: Treatment of diseased vessels with ablative methods

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Livedo vasculopathy (LV) is a thrombotic condition primarily affecting the cutaneous microcirculation. This condition typically presents with reticulate pigmentation localised to the lower legs and interspersed with stellate scars of atrophic blanche. Patients generally give a history of recurrent and sometimes seasonal painful ulceration. The aetiology of LV is unknown, although the disease is associated with underlying thrombophilias, disorders of fibrinolysis, connective tissue disorders, paraproteinemias and infections.
Blue naevus-like melanoma – A rare subtype of melanoma: A case series and review of the literature

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Blue naevus-like melanoma (BNLM) represents melanoma that arises in association with a blue naevus or closely resembles the histopathological appearance of a blue naevus1. To date, there is limited literature on the biological and prognostic outcomes of patients with BNLM.

Our case series describes the experience of four patients with BNLM seen at the Victorian Melanoma Service (VMS), a tertiary multidisciplinary melanoma service at the Alfred Hospital, Victoria. All four patients presented with a primary cutaneous melanoma of the head or neck and all patients displayed aggressive disease progression and poorer overall outcomes compared to patients with other subtypes of melanoma.

Our case series adds to the existing limited body of knowledge surrounding the clinical course, biological behaviour and prognostic outcomes of patients with BNLM, highlighting in particular, the aggressive behaviour of BNLM.

Reference


Piperacillin-tazobactam-induced linear IgA bullous dermatosis presenting clinically as Stevens-Johnson syndrome/toxic epidermal necrolysis overlap

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Linear IgA bullous dermatosis (LABD) is a subepidermal autoimmune bullous disease characterised by linear IgA deposition at the basement membrane zone, which is visualised on direct immunofluorescence. Patients with LABD typically present with widespread vesicles and tense bullae; however, the clinical presentation of this disease is heterogeneous. LABD clinically presenting as Stevens-Johnson syndrome (SJS) or toxic epidermal necrolysis (TEN) is an infrequent, yet well-described phenomenon. Most cases of LABD are idiopathic; however, some cases are drug-induced. Multiple drugs have been implicated in the development of LABD.

We report a case of a 47-year-old man who developed a widespread erythematous eruption that progressed to include bullae formation after 5 days of piperacillin-tazobactam for necrotic cellulitis. He developed widespread dusky erythema, bullae and sheets of Nikolsky-positive detached epidermis with erosions on the trunk and limbs. There was genital and perineal desquamation, but no oral or ocular mucosal involvement. The body surface area of epidermal detachment was clinically estimated to be 15%; thus consistent with SJS/TEN overlap. Direct immunofluorescence demonstrated linear IgA deposition at the basement membrane zone. Piperacillin-tazobactam was discontinued and he received 2 g/kg of intravenous immunoglobulin. He improved rapidly within days, without further progression of skin desquamation.

To our knowledge, this is the first reported case of a strong causal association between piperacillin-tazobactam and LABD. This case illustrates the importance of considering LABD in the differential diagnosis of patients presenting clinically with SJS/TEN overlap or TEN, and highlights the importance of direct immunofluorescence of skin biopsies.

Tele-Derm national: The spectrum of early childhood presentations

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Tele-Derm National, an initiative of the Australian College of Rural and Remote Medicine (ACRRM), provides a rapid-
access, online dermatology consultation service for doctors in Australia. Since 2004, the program has been providing fast-turnaround dermatological advice to doctors in rural and remote communities where there is limited access to specialist advice.

A recent review of the Tele-Derm National program found that approximately one third of referrals were for paediatric dermatoses.

We present a brief audit of the recent activity of the Tele-Derm National tele-dermatology service, with particular reference to requests regarding early childhood presentations. We present a number of case-snapshots that highlight some of the more characteristic referrals to the service, as well as some unusual paediatric conditions encountered since the program began. This presentation provides insight into the particular early childhood dermatological conditions that rural practitioners find challenging. It presents an opportunity to target education towards these areas, boosting confidence and improving patient care. The process also facilitates early referral, if appropriate. This shows that Tele-Derm National is a useful tool for advice for isolated practitioners who need access to advice in an environment where specialist help is not readily available.

**Norspan® (Buphenorphone) patch recall urticaria**

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Norspan patches are adhesive patches applied to a person’s skin as a way of delivering transcutaneous opioid, buprenorphine. They are usually well tolerated with the most common cutaneous side effects being erythema and pruritis at the application site. We present a case of a 47-year-old female who was applying weekly buprenorphine for 1 year before developing a generalized and recall urticarial. We present a case of a 47-year-old female who was applying weekly buprenorphine. They are usually well tolerated with the most common cutaneous side effects being erythema and pruritis at the application site. We present a case of a 47-year-old female who was applying weekly buprenorphine for 1 year before developing a generalized and recall urticarial. We present a case of a 47-year-old female who was applying weekly buprenorphine for 1 year before developing a generalized and recall urticarial.

Our patient was commenced on Norspan patches (5–10micrograms) in late 2014 for management of her chronic back pain. Five months later she presented with persistent urticarial welts on her lower back, bottom and upper arms. A full work up including autoimmune screen, tryptase, EPG/IEPG, IgE and RAST to aeroallergens, was unremarkable. She was commenced on high-dose antihistamines (fexofenadine/cyproheptadine) and a tapering course of prednisone with minimal effect. As a result, she was commenced on plaquenil 400 mg daily. Despite this, 5 months later she returned with improved but persistent urticarial welts and a new onset of lip swelling. At this visit, it was noted that there were several linear urticarial welts confirmed to be sites of previous patch application. Removal of the transepidermal patch revealed another linear urticarial welt. With assistance from her pain management physician the patches were ceased and changed to oxycon- tin. Antihistamines and plaquenil were also ceased and the patient has had no further episodes of urticaria. Pruritis is a common side effect of Norspan patches, but this appears to be the first report of generalized and recall urticarial.

**Linear IgA bullous dermatosis**

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Linear immunoglobulin A (IgA) bullous dermatosis (LABD) is a rare autoimmune mucocutaneous disorder characterized by subepithelial bullae, with IgA autoantibodies directed against several different antigens in the basement membrane zone. Its immunopathologic characteristic resides in the presence of a continuous linear IgA deposit along the basement membrane zone, which is clearly visible on direct immunofluorescence. It occurs in both adults and children, although the childhood form is most frequently termed “chronic bullous disease of childhood”. The clinical picture can be varied, and diagnosis is achieved via clinical, histopathological and immunopathologic examinations.

Two illustrative cases are described. A 71 year old female with vancomycin induced LABD, and a 4 year old girl with chronic bullous disease of childhood. The differential diagnoses, histopathology and management options will be discussed.

An assessment of a triggering drug should always be suspected and ceased appropriately. Two common therapies are dapsone and sulfapyridine, which reduce the inflammatory response and achieve disease remission in a variable period of time. In certain cases oral prednisone may need to be added to achieve control of the disease. Successful treatment of adult and childhood LABD with antibiotics, including dicloxacillin, erythromycin, tetracycline, and trimethoprim-sulfamethoxazole has also been reported.

**Acute alveolitis following infliximab therapy for psoriasis**

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Infliximab is a high-affinity recombinant chimeric immunoglobulin-1 monoclonal antibody directed against tumour necrosis factor-alpha. It is used to treat a range of inflammatory disorders including psoriatic joint and skin changes. Acute interstitial lung disease is a rare but potentially fatal complication of therapy. We report the case of a 67-year-old man with severe psoriasis who presented with acute alveolitis shortly after his third infusion of infliximab. The infliximab was discontinued and investigations did not reveal an infective cause. His respiratory signs and symptoms improved quickly with corticosteroid therapy. Clinicians should be aware of this uncommon but potentially serious complication.
Alopecia areata developing during adalimumab therapy for psoriasis: A case report
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Alopecia areata (AA) is an autoimmune condition which has been reported during treatment with tumour necrosis factor alpha (TNF-α) inhibitors. It is debated whether this represents a drug effect or is coincidental. Interestingly, anti-TNF-α drugs have also been used to treat alopecia areata. An increased incidence of AA has also been described in chronic plaque psoriasis (CPP), an approved indication for treatment with this drug class. We report a case of AA which developed in a 45 year old woman with CPP after 5 months of treatment with adalimumab, a recombinant monoclonal antibody to TNF-α. The patient had no personal or family history of AA. Hair loss progressed rapidly to near alopecia totalis despite cessation of adalimumab and addition of topical and systemic therapies. The mechanism by which TNF-α inhibitors may interact with the complex pathophysiology of AA and act as a potential causative factor is not fully understood. While we cannot conclusively prove a connection we feel it is likely that adalimumab played a role in the development of AA in our case. We present it here to further raise awareness of what may potentially be an important side effect of this class of drugs.

Secukinumab maintains high levels of efficacy through 5 years of treatment: Results from an extension to a phase 3 study (SCULPTURE)
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Background: Secukinumab, targets IL-17A for the treatment of moderate to severe psoriasis. This interim analysis of a phase 5 extension study evaluates efficacy and safety up to 5 years (152 weeks) of treatment.

Methods: This analysis presents results for subjects who completed 52 weeks of treatment in the phase 5 SCULPTURE study and continued into the extension. During the core study, PASI 75 responders at Week 12 were randomised to double-blind maintenance treatment of secukinumab 300 mg or 150 mg, administered (s.c.) either at a 4-week fixed-interval (FI) or in a retreatment-as-needed (RAN) regimen. At entry into the extension, subjects continued with the same blinded maintenance treatment regimen and dose that they had received in the SCULPTURE core study. The statistical noninferiority of RAN vs. FI was not established in the core study up to 52 weeks. Here we report PASI 75/90/100 responses over time in the FI treatment arms, along with safety/tolerability.

Results: With 500 mg FI dose to Year 5, 65.8% and 42.6% of subjects achieved PASI 90 and PASI 100, respectively. The 300 mg dose was consistently more efficacious that the 150 mg dose. No cumulative or unexpected safety concerns were identified. The most common adverse events were nasopharyngitis, back pain, and upper respiratory tract infection, similar to the pivotal clinical studies.

Conclusions: Secukinumab 500 mg given in a fixed-interval regimen provides sustained responses through Year 5. The safety profile of secukinumab is consistent with previous studies, with no new safety signals observed on long-term treatment.

An atypical mycobacterial infection arising in a patient on adalimumab treatment
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It has been well documented that patients on immunosuppressive therapies, especially anti-tumour necrosis factor therapy, are at risk for mycobacterial infections. Aside from the typical mycobacterium tuberculosis infection, atypical mycobacterial infections occur more rarely and tend to take a more challenging and prolonged course as a result of delayed diagnosis. We report a case of mycobacterium marinum, acquired from a public pool, in a man with Crohn’s disease managed on adalimumab. This was treated successfully with doxycycline and cessation of adalimumab. This case underlines that patient pastimes or occupations may carry an increased risk of infection with mycobacterium marinum. Prior to commencing immunosuppressive therapy, it may be beneficial that patients are counselled about this increased risk, considering mycobacterial infections require long-term antibiotic treatment and in some cases, cessation of otherwise very effective medication.

Cutaneous granulomas arising in a patient with ataxia telangiectasia
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Ataxia telangiectasia (AT) is an autosomal recessive primary immunodeficiency disorder characterised by progres-
sive cerebellar ataxia and telangiectasia. Rarely, it has been associated with cutaneous granulomas, with only 18 such cases reported to date. The diagnosis of cutaneous granulomas can be challenging in the context of AT, likely due to the wide clinical heterogeneity, numerous possible differential diagnoses and limited literature. We report a case of predominantly nasal cutaneous granulomas in a 16-year-old female with AT treated with potent topical corticosteroid, infliximab and intravenous immunoglobulin. This regimen has shown progressive improvement in the skin lesions. This case highlights the importance of considering cutaneous granuloma in patients with primary immunodeficiency presenting with refractory and unusual skin lesions.


Cutaneous pyogenic granuloma treated with intralesional triamcinolone injection: A case and review

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Pyogenic granuloma is a rapidly developing, non-neoplastic vascular proliferation. It characteristically presents as a friable, verrucous polypoid tumour, with a tendency to bleed, and association with hormonal factors and minor trauma. Conventional treatment of pyogenic granuloma is with surgical techniques such curettage and cautery or imiquimod therapy. We present this case of a 58-year-old man on haemodialysis with a pyogenic granuloma over the anterior chest wall. The location of the lesion, adjacent to a Hickman line, and a palpable deeper component, proved problematic for routine surgical excision. An alternative approach was taken, and the lesion treated with intralesional steroid injection, a method infrequently described for cutaneous pyogenic granuloma. We aim to review the treatment options of pyogenic granulomas, discusses implications for surgically challenging PG lesions and present our results with intralesional triamcinolone.

A randomized, double-blind, active-and placebo (PBO)-controlled phase 3 study of efficacy and safety of ixekizumab (IXE), adalimumab (ADA), and placebo therapy in patients naive to biologic disease-modifying antirheumatic drugs (bDMARDs) with active psoriatic arthritis (PsA)

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Introduction: IXE is an anti-IL-17A monoclonal antibody under investigation for PsA treatment.

Methods: Four hundred and seventeen bDMARD-naive patients with active PsA were randomized to PBO (N=106), ADA 40mg (N=101) once every 2 weeks (Q2W), or IXE 80mg Q2W (N=105) or once every 4 weeks (Q4W;N=107) after an initial 160mg dose. Endpoints included American College of Rheumatology (ACR) 20 response at 24 weeks (primary), ACR50/70, a 75/90/100% improvement in Psoriasis Area and Severity Index (PASI75/90/100), Disease Activity Score based on C-reactive protein (DAS28-CRP), Leeds Dactylitis Index (LDI-B), Enthesitis Index (LEI), and Health Assessment Questionnaire-Disability Index (HAQ-DI) at 12 and 24 weeks, and Van der Heijde modified Total Sharp (mTSS) score at 16 and 24 weeks.

Results: Three hundred and eighty-two patients completed 24 weeks; ACR20 responses occurred in 50.2%, 57.4%, 62.1% and 57.9% of PBO, ADA, IXE Q2W and IXE Q4W patients, respectively. A significantly higher percentage of IXE Q2W/IXE Q4W than PBO patients achieved ACR20/50/70 and PASI75/90/100 responses at 12 and 24 weeks (p<.01). Both IXE groups experienced greater reductions than PBO in LDI-B at 12 and 24 weeks (p<.025) but not in LEI. DAS28-CRP and HAQ-DI scores improved, and both IXE doses inhibited radiographic progression of joint structural damage (mTSS) (p<.025 vs PBO). At 24 weeks, treatment-emergent adverse events (TEAE) incidence was lower (p<.05) with IXE and ADA vs PBO. Discontinuation due to a TEAE was similar across groups. No deaths occurred.

Conclusion: IXE patients showed greater disease marker improvement than PBO and no unexpected safety findings were observed in bDMARD-naive patients with PsA.

Ixekizumab for the treatment of moderate-to-severe plaque psoriasis: Sub-analysis of the Phase 3 UNCOVER trials in patients with baseline PASI > 15

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Objective: To report the efficacy of ixekizumab for the treatment of psoriasis in patients with baseline PASI > 15, using pooled data from the Phase 3 UNCOVER-1/2/3 trials.

Methods: Patients were randomised to placebo or ixekizumab 80 mg every 2 weeks (Q2W) or every 4 weeks (Q4W) (UNCOVER-1) or to placebo, ixekizumab 80 mg Q2W or Q4W (each with a 160 mg starting dose) or etanercept 50 mg twice-weekly (UNCOVER-2/3). Primary efficacy endpoints were measured at Week 12. Trial methods are described in full detail elsewhere. This post-hoc analysis included only patients with baseline PASI > 15.

Results: Patient demographics and baseline characteristics for the 2244 patients with baseline PASI > 15 are summarised in Table 1. Overall, 95.5% of patients completed treatment with only 1.6% discontinuing due to adverse
events. In UNCOVER-2/3, PASI75 and sPGA0/1 rates at Week 12 were 88.3% and 80.8% in the ixekizumab Q2W group (p < 0.001 vs. placebo and etanercept), 84.0% and 77.4% in the ixekizumab Q4W group (p < 0.001 vs. placebo and etanercept), and 50.1% and 39.1% in the etanercept group (p < 0.001 vs. placebo) and 5.0% and 4.7% with placebo.

Overall rater agreement (UNCOVER-1/2/3) between PASI75 and sPGA0/1 at Week 12 was excellent (j = 0.84; p < 0.001). Week 12 and 60 results are summarised in Tables 2 and 3, respectively.

**Conclusions:** Ixekizumab showed similar efficacy over 12 weeks as published previously for the full patient population (PASI > 12) in the UNCOVER trials. Ixekizumab response rates were significantly better than those with placebo and etanercept.

**Trial registration:** NCT01474512; NCT01597245; NCT01646177.

**Funding:** Eli Lilly and Company.

**References**


Near or complete resolution of psoriasis is associated with greater improvements in itch and health-related quality of life: An analysis from UNCOVER-2, a phase 3 clinical trial of ixekizumab

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**Background:** Psoriasis impacts health-related quality of life (HRQoL), and itch is an important symptom. PASI 75 is considered a good treatment goal, although individuals not achieving near (PASI 90–99) or complete (PASI 100) resolution of skin disease may have continued HRQoL impairment.

**Objectives:** To evaluate differences in patient-reported outcomes (PROs) among individuals achieving PASI 90–99 or 100 compared to those with lower responses in patients with moderate-to-severe psoriasis participating in a phase 3 trial of ixekizumab, an anti-IL-17A monoclonal antibody.

**Methods:** Patients (N = 1224) were randomized to placebo, etanercept (50 mg twice weekly), or an 80 mg ixekizumab injection once every 2 or 4 weeks following 160 mg initial dose. PROs included Itch Numeric Rating Scale (Itch NRS) and Dermatology Life Quality Index (DLQI). Improvements in DLQI and itch at week 12 were compared between patients achieving the following PASI improvements: <50%, n = 352; 50%–<75%, n = 135; 75%–<90%, n = 214; 90%–<100%, n = 269.

**Results:** Greater improvements in DLQI and Itch NRS were associated with greater improvements in psoriasis, with maximum improvements in the PASI 90–99 and 100 groups (p < 0.01 for all PASI <90 pairwise comparisons). Among patients with PASI 90–99 vs patients with PASI 75–90, there were significantly greater reductions in Itch NRS and significantly more patients with a DLQI score of 0–1.

**Conclusions:** Maximum reductions in itching and the highest percentage of patients reporting no impact of psoriasis on HRQoL (DLQI 0–1) were observed among those achieving near or complete psoriasis resolution, suggesting clear skin is a desirable goal.
Epidemiology of Hidradenitis Suppurativa (HS) in Australia
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Introduction: Hidradenitis Suppurativa (HS) is a debilitating painful chronic skin disease, primarily located in inverse areas of the skin (eg axillae and groin) and characterised by recurrent inflamed nodules, abscesses, sinus tract formation, and scarring.

There is important variability in estimations of HS prevalence globally, ranging between 0.4%-4% of the population1, limited general population data by country, and no Australian data. Environmental as well as genetic factors may play a role2.

Objectives: This project aimed at assessing HS prevalence in the Australian population and validating a self-administered questionnaire to predict HS severity.

Methods: 1) A cross-sectional observational study recruited 117 adult patients with Hurley stage I, II and III HS. Predictive ability of a newly developed patient self-administered questionnaire was assessed against the Hurley Stage determined via physical assessment by the clinician. 2) A population-based cross-sectional study involved a clustered random sample of at least 6,000 adult Australian residents to determine HS prevalence. Through face-to-face household interviews, a series of questions were used to detect HS cases3 and provide other relevant information, such as previous HS diagnosis. Individuals identified by the questionnaire as having a positive diagnosis of HS were asked for consent to be referred to a dermatology clinic for clinical diagnosis.

Results: Interim analyses of 3,861 residents suggest a prevalence of HS of 0.7% (95% CI: 0.46% to 1.02%) in Australia. These data need to be confirmed after study completion. The newly developed self-administered questionnaire did not appear to be an adequate prediction tool for Hurley stage.

References

A review of physical therapies for the management of pruritus
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Background: Physical therapies refer to non-medical treatment strategies, including surgery, cryotherapy, UV phototherapy and acupuncture. Most physical approaches are inappropriate in the context of pruritus. UV phototherapy and acupuncture may be effective in the management of pruritus.

Methods: A literature search was performed using MEDLINE and EMBASE. Bibliographies were reviewed for relevant articles.

Results: Narrowband UVB (311–315 nm) and UVA1 (340–400 nm) are equally effective in managing atopic dermatitis and associated pruritus1. The efficacy of broadband UVB (280–315 nm) in reducing uraemic pruritus has been demonstrated in a series of RCTs, but recent studies have failed to reproduce these results. Unrandomised, uncontrolled studies and case series suggest that UV is effective in managing pruritus associated with cholestasis, chronic urticaria, prurigo, cutaneous T-cell lymphoma, aquagenic pruritus and scleroderma. UV phototherapy is well tolerated, and no significant relationship between UVB and skin cancer has been found. Experimentally, acupuncture has been shown to reduce allergen-related itch, although this finding has been limited by the small number of studies, inconsistency in agreement on acupuncture sites and study design, small sample sizes and limited follow-up2.

Conclusions: UV phototherapy is an effective treatment for pruritus associated with atopic dermatitis. UVB may be effective in managing pruritus associated with end-stage kidney disease, cholestasis, chronic urticaria, prurigo, cutaneous T-cell lymphoma, aquagenic pruritus and scleroderma. Phototherapy should be combined with standard first-line therapies. Insufficient evidence exists to justify acupuncture as a physical therapy for itch. Further well designed studies are required to establish the effectiveness of physical therapies in managing pruritus.

References
Phototoxic eruption following ingestion of chlorophyll
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Chlorophyll is a naturally occurring pigment found in green leafy plants, an essential biomolecule for photosynthesis. Liquid chlorophyll is available as an over-the-counter preparation that is marketed as a superfood, antioxidant and detoxifying agent. It is the most widespread plant photosensitiser and metabolites such as phylloerythrin and pheophorbide-a have been reported to cause photosensitisation in animals. There are few reports of chlorophyll-induced photosensitivity in humans, predominantly presenting as pseudoporphyria. We report a case of an acute and severe phototoxic skin eruption following a single large dose of liquid chlorophyll. History and investigations excluded other exogenous and endogenous causes of photodermatosis.

A curious case of inguinal keratotic lesions posing a diagnostic dilemma
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A 28-year-old female presented with scaly, inflamed, fissured, hyperkeratotic, non-pruritic, erythematous plaques over her groins, inner thighs, perianal and perilabial areas of 7 months’ duration. The rash had started 1 month before delivery and continued post-partum. Her general practitioner had tried topical steroid anti-fungal combinations and flucloxacillin. She had no history of drug allergies. She has had one episode of psoriasis several years back. She was otherwise well. Her baby's birth was uneventful. Her father was diagnosed to have cyclical inguinal keratoderma with histology similar to pityriasis rubra pilaris and it responded to acitretin.

The differential diagnoses considered included seborrhoeic dermatitis, fungal infections, inverse psoriasis, Hailey-Hailey disease, pemphigus vegetans, Darier’s disease, acanthosis nigricans, zinc deficiency, amino acid deficiency, necrolytic migratory erythema, contact dermatitis, congenital keratodermas, cyclical inguinal keratoderma and granular parakeratosis. The patient was investigated accordingly. The fungal and bacterial studies and relevant biochemical studies were negative. Histopathology was consistent with a diagnosis of granular parakeratosis and not supportive of any other differentials considered. The patient showed moderate response to topical steroids but the rash persisted. A therapeutic trial of Augmentin was given and the patient showed a clear and dramatic response to the drug and the rash never recurred.

We are presenting this case of granular parakeratosis limited to inguinal region because of the atypical therapeutic response to amoxicillin-clavulanic acid combination (Augmentin) despite being bacterial culture negative.

We further highlight the diagnostic dilemma posed by inguinal keratotic lesions and discuss the various differential diagnoses.

Necrobiotic xanthogranuloma initially presenting as urticaria
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A 41-year-old female presented with a 2-week history of urticaria-like waxing and waning pruritic rash and swelling of face that developed overnight. There were no obvious triggers other than application of a new sunscreen the previous evening. The initial pruritus and swelling settled down with oral prednisolone and anti-histamines but she subsequently developed thick infiltrated yellowish plaques and nodules on her eyelids, lips, buccal mucosa and cheeks. She has been on fluoxetine for several years and has history of easy bruising with trauma. She also gives history of ductal carcinoma-in-situ of breast. She gives family history of coeliac disease, inflammatory bowel disease, multiple malignancies, hypothyroidism and juvenile diabetes mellitus.

The differential diagnosis considered included orofacial granulomatosis, sarcoidosis, angioedema, connective tissue diseases and necrobiotic xanthogranuloma (NXG) and she was evaluated accordingly. Histopathology showed features consistent with a diagnosis of NXG. Hematologic evaluation showed no evidence of paraproteinaemia. She had an abnormal platelet aggregation in response to arachidonic acid and collagen. There were no features supporting any of the other differentials considered. The patient is on close follow-up for any evolving hematologic abnormality.

We are reporting this case because of the atypical initial clinical presentation as urticaria. The patient had no paraproteinaemia that is often associated with NXG. Hematologic malignancies are reported in association with NXG but the significance of a platelet aggregation abnormality and easy bruising is unclear.

A case of suspected tuberculosis seen in rural South Australia
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Introduction: Tuberculosis (TB) is a low-incidence disease in Australia with about 90% of cases occurring in people from high-burden countries. TB-associated cutaneous disorders are rare and can manifest as primary disease or as a tuberculous presumed to reflect an exaggerated immunological response from circulating mycobacterial antigens.
Dilemmas arise due to failure to consider the diagnosis and difficulties in laboratory confirmation.

Clinical record: A 46-year-old healthy Vietnamese female presented after 3-months of erythematous macules with superficial ulceration distributed over the extensor surfaces of her legs. She last visited Vietnam 2 years ago and has lived in Australia for 17 years. Tuberculin skin test (TST) measured 23 mm and biopsy showed suppurative granulomatous dermatitis and panniculitis with a necrotising and partly granulomatous medium-vessel vasculitis. CT chest revealed bilateral hilar and mediastinal lymphadenopathy reported as suggestive of sarcoidosis but with tuberculosis as a possible cause. Histology from an EBUS showed multiple granulomas with epithelioid histiocytes and lymphocytes and cultures are still pending. Despite the lack of bacteriologic confirmation, empiric treatment with standard anti-tuberculous therapy was commenced.

Discussion: Tuberculosis is uncommon in Australia but an important diagnosis to consider in those with TB exposure risk factors. TB associated cutaneous disorders often mimic other conditions and are difficult to confirm in the laboratory. Sarcoidosis and TB can be difficult to distinguish with clinical and radiographic similarities and the decision to treat is based on the overall clinical context. An incorrect diagnosis and steroid treatment for sarcoidosis could cause dissemination of active TB infection.

African tick-bite fever in a returned traveller
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Introduction: Spotted fever (SF) group rickettsial infections are caused by a variety of tick-borne Rickettsia species, often with specific tick vectors and geographic distribution. Most SF rickettsial infection in sub-saharan Africa is caused by R. afri- cae transmitted by the aggressive Amblyomma genus ticks carried on wild ungulates. We report a case of African tick-bite fever (ATBF) after direct contact with wild giraffes during a tagging program.

Clinical record: A healthy 60-year old male presented after 5 weeks of work in a game reserve in South Africa. He wore protective clothing and had extensive direct contact with wild giraffes, but does not recall being bitten by ticks. On presentation he had 2 distinct necrotic in-flammatory nodules (eschars) on his thigh and non-palpable and painless purura over his lower legs. He had a single episode of night sweats but no arthralgia, lymphadenopathy or mucosal involvement and was otherwise asymptomatic. His liver function tests were abnormal and CRP was 110, but he had no thrombocytopenia. Biopsy showed lymphocytic vasculitis and focal epidermal necrosis. Serology confirmed SF group infection with a fourfold titre rise to 1:512. Doxycycline was given for 7 days and he recovered completely.

Discussion: ATBF should be considered in returned travellers with fever and an evolving purpuric rash. An eschar is usually present and multiple is pathognomonic. R. afri-cae is less virulent than other SF Rickettsia and complications are uncommon. When in endemic areas, preventative measures should be undertaken to minimise the risk of tick bites.

An unusual case of Toxic Epidermal Necrolysis with conversion to full thickness skin necrosis
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We report a case of a 55-year-old Indigenous female from rural South Australia who was transferred to a tertiary centre with a diagnosis of pneumonia, complicated by sepsis and multi-organ failure. She developed a widespread blistering eruption over her sacrum, thigh and ankles 8 days after admission to ICU following the administration of ceftriaxone, clarithromycin, meropenem and vancomycin.

Biopsies from the right thigh and ankle demonstrated extensive epidermal necrosis and epidermal detachment with minimal dermal inflammation, confirming the clinical impression of Toxic Epidermal Necrolysis (TEN). She had a SCORTEN of 5 at diagnosis and was managed in ICU with IVlg and multi-disciplinary specialist wound care. Interestingly, 12 days after admission to ICU, affected areas of skin on her sacrum, thigh and medial malleoli progressed to full thickness skin necrosis and eventually required split thickness skin grafts.

Progression to full thickness skin necrosis in TEN is highly unusual, although a similar phenomenon has been described in burn injuries when complicated by secondary infection. We hypothesise that factors including multi-organ failure, peripheral vasoconstriction with high doses of inotropes, pressure and infection may have contributed to this atypical presentation of TEN.

The positive impact of a dermatology consultative service in an acute paediatric and adult tertiary hospital studied over 4 months
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Introduction: Our aim was to determine the impact of a dermatology consultative service on the diagnosis, management and subsequent communication of hospital events to primary healthcare practitioners.

Method: From June to September 2015; 4 months of referrals to the dermatology department were documented using a standardised pro-forma. Recorded information included the revision of diagnosis or management and consultation time. Discharge summaries of all patients
were then analysed for inclusion of dermatology information distributed to healthcare professionals.

Results: 268 dermatology referrals were analysed – including 162 initial patient consultations, 50 phone calls and 56 inpatient reviews. From 162 patient consults, 84 (51.9%) were female (average age: 51.2 years) and 78 (48.1%) were male (average age: 50.9 years) – including 24 paediatric patients. The diagnosis was revised after dermatology input in 105 cases (65.5%) and 146 management plans were revised (90.1%). After initial patient consultation, 77 patients required further investigation (47.5%), biopsy (N = 57, 22.8%) and ongoing review after initial assessment (N = 57, 47.5%). The average consultation time (excluding phone calls) was 42.2 min. Discharge summaries included a dermatological diagnosis in the problem list in 84 (68.9%) cases and 106 (86.9%) appropriately included dermatology input.

Discussion: This study has shown that a dermatology consultative service provides valuable input into diagnosis and changes management plans in an acute tertiary hospital. There is good documentation of dermatology consults in discharge summaries, however better use of the problem list needs to be encouraged with specific mention of investigations performed in hospital.

Understanding the skin cancer burden and follow up practices in a cohort of 199 renal transplant patients at a tertiary hospital

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Introduction: Renal transplant patients are predominantly managed in a tertiary hospital setting and dermatology review is an expected part of that care. We were concerned that the number of renal transplant patients seen in our unit was not reflective of the complete population. Our aim was to understand the attendance and skin cancer burden of our renal transplant population and use this data to develop a management protocol.

Method: 199 patients who had undergone renal transplant since 1980 were retrospectively analysed from data collated until July 2015. Baseline demographics and skin cancer burden were ascertained as well as follow up with dermatology and plastic surgery.

Results: From 199 patients, 78 (39.2%) were female (average age: 56.5 years) and 121 (60.8%) were male (average age: 54.7 years). Most patients had a single renal transplant (N = 178), however some patients also had two (N = 18), three (N = 2) and four (N = 1) renal transplants. Only 171 (85.9%) patients were known to the dermatology department and 44 (22.1%) were known to plastic surgery. The total number of patients who had developed a NMSC since renal transplant was 72 (36.2%) and only 47 patients (23.6%) had undergone annual screening since transplant.

Discussion: Annual skin cancer screening in renal transplant patients is much lower than expected. Developing a hospital protocol for risk stratification of renal transplant patients may help in the early detection of skin cancer. Information on follow up in private dermatology and primary healthcare is currently being finalised.

Collaboration?: Dermatologists, rheumatologists and psoriatic arthritis – A literature interpretation

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A perplexing peristomal plaque: A case of peristomal intestinal metaplasia

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Peristomal intestinal metaplasia (PIM) of ileostomies has been rarely reported. We present an 88 year old Asian-Caucasian female with a history of ulcerative colitis and 55 year ileostomy presents with a 5 year history of peristomal skin irritation worsening over 2 years after development of a peristomal hernia. There was associated
An unusual case of lichen planus occurring in sites of cupping therapy

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Lichen planus (LP) is a relatively common chronic inflammatory disorder of the skin and mucous membranes, occurring most commonly in middle-aged adults. The aetiology and pathogenesis of LP are not fully understood, but the disease has been associated with multiple environmental exposures, such as medications, viral infections, vaccinations, intramuscular injections and even acupuncture.

We report a case of a 44-year-old male who developed a cutaneous eruption on the trunk 5 months after being treated with cupping. Clinical and histopathological examinations were consistent with Lichen Planus occurring at the sites of previous cupping therapy. We suggest that those performing or undergoing cupping therapy to be conscious of the potential to trigger this immune-mediated condition.

Axillae milia-en-plaque: An atypical presentation for primary systemic amyloidosis

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A 79-year-old woman presented with a 2–3 month history of pruritus and a localised eruption in both axillae. It had had a gradual onset over this period. She had never had anything like this before and there were no obvious exacerbating or relieving factors. She had a history of multiple myeloma for which was under the care of a haematologist. She had a history of breast cancer several years earlier for which she had a right total mastectomy, lymph node dissection, adjuvant radiotherapy and chemotherapy.

On examination, there were bilateral symmetrical plaques of hyperpigmentation studded throughout with milia to give the appearance of milia-en-plaque. There was a small bruise proximally in the right axilla only. Her skin was generally atrophic but in keeping with age. The rest of the examination was unremarkable with no purpura or macroglossia noted. A clinical differential diagnosis included atypical acanthosis nigricans and granulomatous slack skin.

Punch biopsies were taken for histology. The histopathology demonstrated cystic milia. Within the dermis there was deposition of an “eosinophilic proteinaceous substance with the staining properties of amyloid”. There were no fungal elements or evidence of a malignant process.

Primary systemic amyloidosis can appear in patients with multiple myeloma and has a poor prognosis. Systemic involvement can commonly affect heart, kidneys and lungs. It can have cutaneous manifestations in about 50–
40% of cases. However, this appears to be the first case of it appearing as milia-en-plaque in the axilla.

Reference


Scratching the surface: Characteristics of itch in psoriasis

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Introduction: Itch is a known feature of psoriasis which can be very distressing for patients. The purpose of this investigation was to ascertain what proportion of psoriasis patients complained of itch and what situations caused an exacerbation.

Method: Psoriasis patients were given surveys at their dermatology appointments. Information regarding psoriasis severity, management and type was collected as well as what situations patients suffered itch. Situations listed included seasons, showering, stress and psoriasis flares. Psoriasis characteristics were analysed against itch prevalence using descriptive statistics.

Results: Provisional results included 51 psoriasis patients. In the group 88% (45/51) had itch with 57% (19/51) reporting itch at least “most of the time”. Only 12% (6/45) of the patients “never” had itch. At time of data collection 65% (32/51) of patients had mild psoriasis (PASI < 5), 22% (11/51) had moderate (PASI 6–0) and 16% (8/51) had severe psoriasis (PASI > 10). Interestingly 16% of those with mild psoriasis had itch “always” compared to 15% of those with severe psoriasis. Winter was the most exacerbating season with 64% (29/45) of those with itch reporting an exacerbation. Psoriasis flares exacerbated itch in the highest proportion of patients reporting itch with 78% (35/45) affected. Beyond the list provided on the survey, exercise and night time were the most frequently listed “other” situations.

Shooting star sarcoid

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A 55 year-old-man presented with a 2-month history of markedly pruritic, erythematous raised areas within his recent tattoo on his right deltoid. Onset of symptoms occurred 7–10 days after the tattooing process and localised to a specific area of the tattoo where he had had ultraviolet phosphorescing white pigmented sites. The rest of the tattoo remained unaffected. This was the patient’s first tattoo with this product but had had other tattoos in the past. His medical history was unremarkable.

Clinically, the raised erythematous minimally scaly reaction occurred in specific areas of the tattoo but not the whole tattoo. A clinical differential diagnosis included allergic contact dermatitis, infection or scar sarcoidosis were considered.

Punch biopsies for histology and microscopy, culture and sensitives were taken as well as bloods and a chest x-ray. Histopathology demonstrated “multiple sarcoideal granulomas within the superficial and mid-dermis”. Additionally there were “minute amounts of non-birefringent mineral refractile crystal within some of the granulomas”. Tissue cultures were negative including mycobacteria and fungal. Chest x-ray and bloods were normal. A diagnosis of localised scar sarcoidosis was made.

Sarcoidosis can appear as a result of tattoos. We postulate that an additive in the white, ultraviolet phosphor-fluorescent tattoo agent triggered a selective reaction to these specific areas of the tattoo alone.

An unusual presentation of pyoderma gangrenosum leading to circulatory shock

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Introduction: We report an atypical presentation of Pyoderma Gangrenosum (PG) in a 26-year-old Pakistani male who had a negative septic screen. The patient required ICU admission for vasopressor support. We believe the cause of circulatory shock in this patient is an overwhelming cytokine reaction secondary to extensive PG.

Case description: The patient presented with multiple large ulcers, the largest being 4 cm on the central chest. He developed fevers and shock preceding his ICU admission. Microbiological specimens including blood cultures and wound swabs were negative for any growth (bacterial, fungal, TB). No infective focus could be identified for the cause of haemodynamic instability. During this admission, the patient's con-
dition was complicated by multi-organ dysfunction and debridement was deemed necessary. Histopathology showed abundant neutrophils but could not confirm an infective process. Overall, he made an impressive recovery and serial photos show almost complete healing of all lesions following oral prednisolone. The patient had a history of ulcerative colitis and a similar presentation with facial lesions which also necessitated ICU admission 3 years prior.

Discussion: A review of literature revealed one case, of a 76-year-old female with lower leg ulcers who developed circulatory shock and required amputation. Lesions continued to appear despite antibiotics and surgical treatment. Microbial specimens were negative and she was subsequently diagnosed with PG. Interestingly, the patient rapidly recovered after steroid therapy. Our patient had an atypical but severe presentation of PG with circulatory shock. We hypothesize the haemodynamic compromise was predominantly due to a cytokine reaction secondary to PG lesions.

Reference


Painful leg ulceration in a hypertensive diabetic woman – A report of a martorell ulcer with serial photographs

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Martorell ulcer is a form of lower limb ulceration, preceded by a small area of excruciating pain. It often appears as a solitary lesion on the outer aspect of the lower limb, and is primarily associated with poorly controlled hypertension and sometimes with diabetes mellitus. Treatment of the ulcer involves awareness and early correct diagnosis, adequate control of blood pressure, management of infection and wound care.

We describe a 77-year-old diabetic and hypertensive woman presenting with excruciating pain on her right lower lateral leg leading to a necrotic ulcer. A differential
diagnosis of calciphylaxis, pyoderma gangrenosum and atypical infections were also considered. Based on the history, clinical features, skin biopsy and the evolution of the ulcer a diagnosis of Martorell ulcer was made. Serial photographs of evolution of the lesion and eventual healing of the ulcer are presented.

This case emphasizes the importance of considering Martorell ulcer in patients presenting with an ulcer on a background of poorly controlled hypertension and disproportionate excruciating pain in the ischemic area prior to ulceration.

Dermatology in a hospital outpatient clinic in Punjab, India

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The array of challenges in the outpatient health care setting in India produces a high case load and a unique dermatological case mix.

A preponderance of infectious disease characterises the case mix, including cutaneous manifestations of systemic infectious diseases including leprosy, tuberculosis, dengue, AIDS, and syphilis; bacterial and fungal skin infections; and parasitism including scabies and pediculosis capitis. Additionally, these conditions present in their full variety of acute and chronic pathology.

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Secukinumab demonstrates an acceptable safety profile in moderate to severe plaque psoriasis: Pooled analysis of 10 phase 2/3 studies

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Introduction: Secukinumab, a fully human anti–IL-17A monoclonal antibody, has shown efficacy in psoriasis. We conducted a pooled safety analysis of 3993 psoriasis subjects from 10 phase 2/3 secukinumab studies.

Methods: Subjects received s.c. secukinumab 300 mg, 150 mg, placebo (PBO), or etanercept 50 mg (one study). Adverse events (AEs), and AEs of Interest (infections, candidiasis, neutropenia, Crohn’s disease [CD], ulcerative colitis, [UC], malignancy, major adverse cardiovascular events [MACE]) were analysed at Week 12 and Week 52.

Results: AEs with secukinumab 500 mg (54.2%) and 150 mg (56.5%) at Week 12 were numerically higher vs. PBO (50.4%) and comparable to etanercept (57.6%). At Week 52, exposure-adjusted incidence rates (IR per 100 subject-years) of AEs with secukinumab 500 mg (225.1; n = 1410) and 150 mg (220.9; n = 1595) were lower vs. PBO (351.8; n = 295) and comparable to etanercept (243.4; n = 323). IR of infections showed a similar trend, while localized skin/mucosal candidiasis was higher with secukinumab 500 mg. There was one death (hemorrhagic stroke [150 mg]), unrelated to treatment as judged by the investigator. Neutropenia was infrequent (Grade 3, n = 18 for any secukinumab dose; no Grade 4 cases), transient, not associated with serious infections and did not lead to discontinuations. No clinically meaningful difference was found in IRs of MACE, CD, UC and malignancy.

Conclusions: This analysis of pooled safety data from 10 studies supports a favourable safety profile of secukinumab over 52 weeks in subjects with psoriasis, although more data are needed to make definitive conclusions for MACE, CD, UC and malignancy.

A new anatomical landmark for a mental nerve block (MNB), improving the efficacy in edentulous patients

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The mental nerve block (MNB) is an integral part of anaesthesia of the lower lip for surgical procedures such as laser vermilionectomies. The anatomical landmarks for the mental nerve block generally rely on the identification of the first and second pre-molar. The anatomical position of the mental foramen has been variably reported in relation to this landmark. This method of identification presents a challenge to clinicians, particularly in the edentulous patient as anatomical landmarks disappear. We describe a case series relying on a new anatomical landmark the “Para-canine pseudofremulum” to deliver equivalent anaesthesia to the lip while improving the efficacy in edentulous patients.

Clearance of an extramammary paget’s disease lesion with milk weed latex (Euphorbia peplus): A case report

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Extramammary Paget’s disease (EMPD) is a distinct, relatively rare skin neoplasm. Recurrence rates can be high, despite aggressive surgery and patients are at risk of developing invasive adenocarcinoma.¹ We present the case of an 85-year-old man with EMPD in the pubic and umbilical areas. The initial lesion in the pubic region was surgically excised. Screening revealed an adenocarcinoma of the ascending colon, which was surgically resected. Five months after the removal of the EMPD on the pubic region he developed a new plaque at the umbilicus. A skin biopsy of this lesion also revealed EMPD. The patient refused surgical resection therefore, was prescribed Imiquimod cream topical application. Instead, on his own accord he topically applied the latex of milkweed (Euphorbia peplus, active ingredient ingenol mebutate) from his backyard, every 2 weeks for 4 months. This application was associated with severe inflammation and vesicle formation in the treated area. On two occasions the patient used the latex of another plant, later identified as Euphorbia terracina. That too caused a similar inflammatory response.

Five months after finishing the application of the milkweed latex, the lesion had clinically resolved, with some superficial scarring of the skin. There had not been any major
side effects other than severe inflammation at the treated site, similar to the effects of commercially available ingenol mebutate gel.²

We record for the first time the clearance of an EMPD lesion with the latex of Euphorbia peplus latex. A study using ingenol mebutate for EMPD is being planned.

References

Hereditary leiomyomatosis and renal cell carcinoma syndrome: A case series
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We report two unrelated cases of hereditary leiomyomatosis and renal cell carcinoma syndrome (HLRCC). HLRCC is a rare genetic condition caused by a mutation in the fumarate hydratase (FH) gene on chromosome 1q. FH catalyses the conversion of fumarate to malate and acts as a tumour suppressor gene.

Case 1: A 52 year old female was referred for a routine skin check. Past medical history was significant for hysterectomy for uterine fibroids and bilateral oophorectomy for symptomatic ovarian cysts. There was a family history of uterine fibroids and ovarian cysts.

Examination showed multiple firm erythematous papules and nodules over the forearms, abdomen and legs. Biopsy was consistent with leiomyoma, a benign smooth muscle tumour. Over the next decade the patient developed multiple benign bowel polyps and a benign appearing lobulated renal cyst. Genetic testing found a heterozygous FH:c.502A>C variant in exon 5 of the FH gene, confirming a diagnosis of HLRCC.

The patient continues with yearly renal ultrasounds and mammograms. Her daughter has declined genetic testing.

Case 2: A 51 year old female accompanied her son for his skin check. Incidentally, it was noted that she had multiple asymptomatic nodules on her arms and legs. There was a past medical history and family history of multiple uterine fibroids.

Biopsy of a nodule was consistent with leiomyoma. Genetic testing also found a heterozygous FH:c.502A>C variant in exon 5 of the FH gene. A screening renal ultrasound was negative. The patient’s son is currently undergoing genetic testing.

Severe atopic dermatitis with ectodermal dysplasia: A case report
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We present a case of a 66 year old Caucasian lady with a lifelong history of treatment resistant severe atopic dermatitis. She has failed to respond to nbUVB, multiple immunosuppressants, and anti-TNF monoclonal antibodies. Incidentally on peri-lesional skin from a BCC excision, it was noted that the patient had features of ectodermal dysplasia.

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Her clinical examination was that of severe generalised xerosis and eczematous eruptions involving face, trunk and limbs. On closer examination, it became apparent that the patient had dentures masking original pegged shaped teeth, subtle onychoschizia, absent axillary hair, and bilateral short 5th metacarpal bones. Specific targeted questioning revealed lifelong hypohidrosis and intolerance to heat. Family history was positive for hypohidrosis and dental abnormalities in her father.

Histopathology of nasal alar peri-lesional skin showed hypoplastic eccrine glands, absent sebaceous glands and abnormal hair follicles.

The patient is currently enrolled in a Dupilumab clinical trial, and thus far, this is the only treatment that has improved her skin. She is currently undergoing genetic sequencing to identify the causative gene.

The effectiveness of montelukast as adjunct treatment among children with atopic dermatitis: An open-label, randomized controlled trial

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Background: Future treatment of atopic dermatitis (AD) focuses on targeting specific mediators in disease pathogenesis. Leukotrienes are inflammatory mediators found in AD. Montelukast, a leukotriene receptor antagonist, may therefore have a role in treating AD. The study examines potential benefits of montelukast as an adjunct treatment for AD.

Method: An open-label, randomized controlled trial of 62 children aged 6–16 years old with AD was conducted at Box Hill and Royal Children’s Hospitals, Melbourne. Participants were randomized to either treatment group (prescribed montelukast as adjunct to topical therapy) or control group (treated only with topical therapy) for 8 weeks. The Scoring Atopic Dermatitis (SCORAD) index assessed disease severity while the Children’s Dermatology Life Quality Index (CDLQI) assessed impact on quality of life.

Results: An interim analysis of 1 month data for 20 participants showed a SCORAD reduction of 55% in the treatment group compared to 15% in the control group (p-value 0.070, 95% CI –0.85 to 19.05). Corresponding reductions in objective SCORAD were 52% and 10% (p = 0.047 95% CI 0.10–14.49). CDLQI scores improved by 50% in the treatment group compared to 25% in the control group (p-value 0.0846, 95% CI –0.45 to 6.45).

Conclusion: The greater reduction in SCORAD and CDLQI scores at 4 weeks suggests potential benefits of montelukast for AD management. Recruitment and data collection will continue to reach target sample size as presented.

The effects of applying a moisturiser on sunscreen efficacy

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Consumers have a good understanding on the impact of incidental sun exposure on their skin. Therefore, sun protection is often used for skin cancer prevention and its anti-ageing benefits, with daily wear sunscreens forming part of many consumers’ skin care regime.

The efficacy of a sunscreen relies on its film thickness, uniformity, and adherence to the skin. Many consumers apply significantly less sunscreen than the recommended dosage, thereby providing less protection than the labeled SPF. Furthermore, facial sunscreens are often used in conjunction with other products including moisturisers and foundations. The effects of these adjunct products on the sunscreen film, and therefore the degree of sun protection, are unknown.

Therefore, this study investigates the effects of applying a moisturiser in conjunction with a non-water resistant facial sunscreen; and more specifically, whether the order of application affects the efficacy of the sunscreen itself. Subjects cleansed their faces using the provided cleanser, applied a pre-determined amount of moisturiser or sunscreen, followed by the application of the same sunscreen or moisturiser respectively. Digital images were taken at set time points for the qualitative assessment the skin. In vivo SPF testing was also carried out after the application of the same moisturiser then sunscreen, and vice versa.

The order of product application was shown to affect the efficacy of the sunscreen.

The physiological benefits of optimally designed cleansers

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Publish consent withheld.

Escherichia coli cellulitis and myonecrosis in a patient with Hepatitis B

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Cellulitis is an acute spreading infection of the skin and subcutaneous tissue. It usually occurs secondary to a cutaneous portal of entry, with the commonest organisms being Streptococcus pyogenes and Staphylococcus aureus. Cellulitis due to Escherichia coli is rare and is typically only seen in immunocompromised patients, including those with cirrhosis. In these patients the cellulitis may be secondary to E.coli bacteraemia and can present with bullae, abscesses and myonecrosis. We present a case of E. coli cellulitis of the left leg with myonecrosis in a 49-year-old man who denied significant past medical history and current comorbidities. There was no history of any
preceding injury to the leg. There was no icterus or other clinical evidence of liver disease. Culture from the tissue biopsy showed a growth of E. coli susceptible to Piperacillin-Tazobactam. Subsequently, further history revealed a recent diagnosis of Hepatitis B infection. Investigations did not reveal any other causes of immunosuppression. Aggressive treatment with systemic antibiotic therapy, drainage of pus, wound debridement and skin grafting resulted in improvement. This is the first reported case of E.coli cellulitis and myonecrosis associated with Hepatitis B infection, without overt cirrhosis.

References


Secukinumab provides sustained improvements in the signs and symptoms of Active Psoriatic Arthritis in Anti-TNF-Naive patients and those previously exposed to Anti-TNF Therapy: 52-week results from a randomized, double-blind, placebo-controlled phase 3 trial with subcutaneous dosing

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10Novartis Pharma AG, Basel, Switzerland

Background: Additional treatment options are needed for patients with psoriatic arthritis (PsA) who have had no response to anti-tumor necrosis factor (anti-TNF) therapy. Secukinumab, an anti-IL-17A antibody, demonstrated significant efficacy in the randomized, double-blind, placebo-controlled phase 3 FUTURE 2 study. Here, we present the 52-week efficacy and safety data of secukinumab in patients with anti-TNF history.

Methods: Patients were randomized to receive secukinumab 300 mg, 150 mg, 75 mg, or placebo at baseline, weeks 1, 2, 3, and 4, and then every 4 weeks from week 8. At week 16, placebo-treated patients were re-randomized to receive secukinumab 500 or 150 mg from week 16 or 24, depending upon clinical response. The primary endpoint was ACR20 response at week 24. Secondary endpoints were PASI 75/90, DAS28-CRP, SF-36 PCS, HAQ-DI, ACR50, dactylitis, and enthesitis. Analyses used non-responder imputation (binary variables) and mixed-effect model repeated measures (continuous variables) through week 52.

Results: Of the 597 patients enrolled, 65% were anti-TNF-naïve and 55% were anti-TNF-IR. At week 24, ACR 20/50/70 and PASI 75/90 responses were higher with secukinumab vs. placebo in both anti-TNF-naïve and anti-TNF-IR patients. Improvements with secukinumab vs. placebo at week 24 were also observed for other secondary endpoints. Response rates were generally higher amongst anti-TNF-naïve patients vs. anti-TNF-IR patients. Clinical responses to secukinumab were sustained or continued to improve through 52 weeks of therapy in both anti-TNF-naïve and anti-TNF-IR patients.

Conclusion: Secukinumab provided sustained improvements in the signs and symptoms of PsA in both anti-TNF-naïve and anti-TNF-IR patients.

Neoadjuvant treatment with vismodegib of a patient with a giant locally advanced basal cell carcinoma

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A 49-year-old Caucasian female presented with a ten-year history of a steadily growing exophytic tumour measuring 8 cm by 5 cm on the right posterior neck. An MRI showed a poorly defined mass extending down into the supraclavicular fossa close to the brachial plexus and external jugular vein. A skin punch biopsy confirmed the diagnosis of a basal cell carcinoma. A multidisciplinary meeting was held and it was decided the tumour was not amenable to surgery or radiotherapy. The patient was therefore enrolled in an open label clinical trial to assess the safety and efficacy of oral vismodegib sponsored by Hoffmann-La Roche, NCT#01367665. Two months after starting vismodegib the tumour markedly decreased in thickness, leaving a pale scar with small cutaneous Islands of residual tumour. The patient suffered significant drug related adverse events including alopecia, dysgeusia, anorexia, nausea, vomiting

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and muscle cramps. After 18 months of treatment one of
the islands of tumour increased in size, and the decision
was made to stop vismodegib and excise the residual
tumour. A wide local excision was performed by the plastic
surgery team and the defect was reconstructed with a split
skin graft. Twelve months after surgery there was no clini-
cal or radiological sign of recurrence.

Vismodegib is an oral hedgehog pathway inhibitor used to
treat advanced basal cell carcinomas. It has been approved
by the therapeutic goods association of Australia, but it is
not yet listed on the pharmaceuticals benefits scheme.

The operation of a tertiary referral combined chronic
lymphocytic leukaemia/dermatology clinic
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Background: Chronic Lymphocytic Leukaemia (CLL)
patients often have cutaneous manifestations of their dis-
ease and are also at increased risk of a number of derma-
tological conditions, including malignant and infective
processes.

Methods: An audit of the combined CLL Haematology /
Dermatology tertiary referral clinic at Royal North Shore
Hospital was performed from May 2013 - May 2015, 80 CLL
patients with skin lesions were reviewed in 185 separate
patient encounters which resulted in 98 distinct diagnoses.

Results: Within 185 patient encounters, cutaneous mani-
festations of CLL accounted for 5% of the diagnoses –
these ranged from leukaemia cutis to life-threateningly
severe paraneoplastic pemphigus ([PNP] a.k.a. paraneo-
plastic autoimmune multi-organ syndrome [PAMS]). A sig-
nificant number of dermatologic malignancies were
encountered in these patients (41%), facilitating early spe-
cialist treatment including referral for surgical and/or
radiotherapy opinions.

Infective skin conditions accounted for 8% of diagnoses.
Non-malignant dermatological conditions including drug
exanthems and eczema accounted the remaining diagnoses.

Conclusions: CLL patient population have increased skin
cancer incidence and progress more rapidly than the gen-
eral population. Provision of a combined Haematology/
Dermatology referral service allows timely triage, and
more targeted management and follow-up of the myriad of
skin conditions that may occur in the complex clinical set-
ing of CLL patients.

We present a case of a 68-year-old woman with easy bruis-
ing, painless jaundice and dark urine. She noted several
large lesions, which rapidly evolved over days, located on
the right forehead, the abdomen and back which were
non-blanching, indurated without any overlying scale. She
presented to emergency 1 week later in fulminant liver
and bone marrow failure. A skin biopsy was taken of the
lesions, which demonstrated massive mononuclear cell
infiltrate with a diffuse pattern infiltrating the full thick-
ess of the rest of the dermis and into the subcutaneous
fat to the deep margin of the biopsy. Bone marrow biopsy
confirmed Blastic plasmacytoid dendritic cell neoplasm
(BPDCN). She was commenced on high dose prednisone
100 mg BD and allopurinol in an effort to start chemother-
apy as soon as hepatic function was improving. However,
she was admitted to ICU for rapid progression of multi-
organ failure including kidneys, liver and lungs and died
16 days after presentation on full intensive care support.

BPDCN has a high frequency of skin involvement and leu-
kemic transformation. It has a rapidly progressive course

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Erythema multiforme secondary to imiquimod

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Imiquimod 5% cream is indicated for the treatment of actinic keratoses, superficial basal cell carcinoma (BCC) and genital warts. Whilst local application site reactions are common, remote site skin reactions, including erythema multiforme, Stevens Johnson syndrome and pemphigus, have rarely been reported in the literature.1 2

A 66-year old man was treated with 5% imiquimod cream for superficial BCCs on his chest. After 2 weeks of appropriate application of imiquimod, he became mildly unwell and developed papules, nodules and plaques with crusting on his entire trunk, limbs (including palms) and face. The following day the reaction advanced to include conjunctivitis and erosions of his lips. A clinical diagnosis of erythema multiforme major was made.

Biopsies from the palm and forearm showed subtle interface activity with hyperkeratosis and hypergranulosis. Direct immunofluorescence was negative. The histology, whilst not specific, was consistent with erythema multiforme. Investigations for other causes of erythema multiforme, including mycoplasma pneumonia and herpes simplex virus, were negative.

Cessation of imiquimod, application of topical betamethasone valerate cream, oral flucloxacillin and aciclovir, led to rapid improvement, with complete resolution within 2 weeks.

It is important for clinicians to be aware that adverse reactions to imiquimod may include erythema multiforme, and require its prompt cessation and appropriate supportive care.

References


The efficacy and safety of a 70% glycolic acid peel with vitamin C for the treatment of acne scars

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Background: Chemical peels are used in the treatment of acne scars. Glycolic acid peels belongs to a group of naturally occurring acids known as alpha hydroxy acids (AHA). We retrospectively evaluated the efficacy and safety profile of a high potency 70% glycolic acid peel with Vitamin C in treating facial acne scars.

Methodology: Between Sep 2014 to March 2015, 15 patients with atrophic acne scarring underwent 5 chemical peels that were performed at monthly intervals. Photographs taken pre and post peel were evaluated with the ECCA (Echelle d’Evaluation clinique des Cicatrices d’acné) grading scale for facial acne scarring and the postacne hyperpigmentation index (PAHPI). Side effects (redness, swelling, oozing, crusting, hyperpigmentation, scarring) and visual analogue scales (VAS) for both physician and patient were performed at each visit. The latter was used as a marker for patients’ satisfaction.

Results: Overall, there were improvements in both ECCA and PAHPI scores. The mean pre-treatment ECCA score was 170.58 (median score 180, SD = 59.18). There was a trend towards improvement, with maximal effect noted at week 16 where a total mean score of 115 (median score of 117.5, SD = 41.57) was achieved. The improvement in acne scarring was statistically significant in week 12, and sustained at week 16. Patient’s VAS also improved, suggesting satisfaction with the peel. Side effect profile was largely tolerable except for 1 patient who experienced mild hyperpigmentation.

Conclusions: 70% glycolic acid peel with Vitamin C is an effective treatment for atrophic acne scars, with a tolerable side effect profile.

Acute non–sexually acquired genital ulceration in a post-partum woman

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A 50-year-old woman, 9-weeks post-partum, presented with a 2-week history of acute genital discomfort and dysuria. On examination there were 6–7 painful, shallow 7–10 mm ulcers on the inner labia minora, with a yellow-white base and erythematous border. There were white patches in the mouth but no erosions. She was systemically well, with no focal symptoms to suggest Behcet disease, infection or inflammatory bowel disease. She denied prodromal illness, new medications, or STIs. Past history included oral lichen planus (LP), but no genital ulceration. Swabs for HSV1/2, VZV, syphilis PCR and bacterial MCS were negative. In the absence of other symptoms, acute non–sexually acquired genital ulceration (NSGU) was diagnosed. Vulvar LP was a differential, but the ulceration was considerably greater than would be typical. Management comprised oral prednisolone, topical methylprednisolone aceponate 0.1%, topical xylocaine 5%, urinary alkalisers and general vulval care. On review 5-weeks later the ulcers had nearly all healed and she was symptomatically much improved. She continued Advantan ointment which she felt helped.

NSGU refers to painful ulceration of the genital mucosa and adjacent skin. Also known as Lipschütz ulcers or com-
plex apthous ulcers, the condition typically affects pre-pubertal and adolescent females (1). The exact aetiology of NSGU is unclear, but there may be various precipitants, the most frequent being Epstein-Barr virus (2). Stress and sleep deprivation may be risk factors. Here we describe a case of likely NSGU in a post-partum woman. We undertake a literature review including epidemiology, aetiology, precipitants, histology, and key differential diagnoses of NSGU.

References

A case of cellulitis like presentation masking underlying acute lymphoedema secondary to axillary metastatic melanoma
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There are reported cases of diphencyprone used in treating cutaneous metastases of melanoma. Here we report a patient with previous primary melanoma on his left back treated with surgical excision and lymphadenectomy, followed by radiotherapy for the recurrent tumour on the primary site. Despite radiotherapy and treatment with dabrafenib and trametinib therapy. This case highlights that in metastatic melanoma, a CT scan was requested that showed significant axillary lymph node metastasis. The fever was considered secondary to dabrafenib and trametinib therapy. This case highlights that in patients with lymphadenectomy atypical forms of lymphoedema on the body may appear. Truncal lymphoedema is an infrequent event.

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Case series of bullous pemphigoid associated with pembrolizumab use in patients with metastatic melanoma
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Of 115 patients reviewed in Westmead dermatology department from May 2012 to November 2015, treated with immunotherapies (pembrolizumab, nivolumab or ipilimumab) for advanced melanoma, non-small cell lung cancer or renal cell cancers; we have seen three cases of bullous pemphigoid (BP) developing in patients receiving pembrolizumab for metastatic melanoma. These three cases suggest that the anti-Programmed Death 1 allows pre-existing autoimmune T cells clones to evade the immune system or autoimmunity developing secondary to the therapy.

In the two newly reported cases, BP was diagnosed early and good disease control was obtained with potent topical steroid or oral prednisone. Patients on immunotherapies are at higher risk of developing immune mediated cutaneous adverse events and clinicians should have a low threshold for conducting biopsies and immunofluorescence studies.

Ipilimumab induced acute generalised exanthematous pustulosis (AGEP) in a patient with metastatic melanoma
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Ipilimumab is an anti-cytotoxic T lymphocyte antigen-4 (CTLA-4) monoclonal antibody that stimulates the immune response against melanoma. A 50-year-old male received ipilimumab for metastatic melanoma as a part of clinical trial. Two weeks after drug initiation, he developed a wide spread oedematous erythema with sterile pustules. The histological examination showed subcorneal pustulosis formation with eosinophils. The clinical-pathological correlation was consistent with Acute Generalised Exanthematous Pustulosis (AGEP). The symptoms resolved within 25 days after discontinuation of ipilimumab. We suspect neutrophilic accumulation under epidermis in this patient is a similar phenomenon to intraepithelial neutrophils aggregating on the surface epithelium over laminar pria in Ipilimumab induced colitis. To our knowledge, this is the first reported case of AGEP associated with ipilimumab use in metastatic melanoma patients.

Topical crushed prednisolone use in recalcitrant peristomal pyoderma gangrenosum
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We present a 65-year-old lady with recalcitrant peristomal pyoderma gangrenosum (PPG) developing next to her urostomy site. Local therapies in the form of betamethasone dipropionate 0.05%, tacrolimus 0.1%, dapsone (25 mg daily) and intralesional triamcinolone injections (10 mg/mL) provided no benefit. Systemic therapies including oral prednisolone (35 mg daily), infliximab (5 mg/kg Weekly) and mycophenolate mofetil (1 g twice daily) also failed to induce a response. A trial of 1 mg crushed prednisolone applied topically to her PPG three times per week resulted in a significant reduction in ulcer size and successful cessation of all systemic therapies. Encouraging results from our case and a previous case series suggests that further research is warranted for the use of topical crushed prednisolone in the treatment of PPG.

Reference

Combination topical phenytoin paste and low frequency ultrasound debridement (SONOCA-185) used for the treatment of a recalcitrant skin ulcers
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Skin ulceration is an erosive disorder of the superficial epidermis to the deeper subcutis tissue. Leg ulcers are defined as ones below the knee. In the chronic phase leg ulcers can be significantly debilitating, adversely impacting the patient’s quality of life. Venous disease, arterial disease and neuropathy are some of the commonest causes of lower leg ulcers. Less common causes include inflammatory diseases, neutrophilic dermatoses, hematologic and infective diseases.

Treatment options of leg ulcers focus on treating the underlying disease. Venous ulcers are treated by wound debridement, continuous wound dressings and leg elevation with compression. Arterial ulcer treatment focuses on revascularization, implementation of antiplatelet medications and modification of disease risk factors. Neuropathic ulcer treatment focuses on pressure offsetting, regular podiatry review and optimal blood sugar control in the diabetic patient.
Phenytoin is an anti-seizure medication used to manage epilepsy. Since its use from the early 20th century, phenytoin has been documented to stimulate gingival hyperplasia and tissue growth. Some studies have demonstrated the healing effect of phenytoin on numerous wounds including leprosy, diabetic and pressure sores. Topical phenytoin enhances wound healing by improving the quality and vascularity of granulation tissue by stimulating fibroblast activity while maturing and decreasing the activity of collagen.

Low pulse ultrasound utilizing the SONOCA-185 device, gently debrides wounds, preparing its base as a platform for granulation tissue. After 5 months treatment with SONOCA-185 wound debridement and application of topical phenytoin, near complete to complete wound healing was achieved in patients with recalcitrant leg ulcers.

Alopecia universalis: An extremely rare adverse effect of adalimumab

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Objective: To report alopecia universalis (AU) as an adverse effect of adalimumab.

A 50-year-old male was diagnosed with psoriasis and psoriatic arthritis and was commenced on adalimumab subcutaneous injections biweekly after failing treatment with methotrexate. The psoriatic skin lesions and arthritis showed improvement. However, 1 year later he lost all his body hair including pubic hair. Trichoscopy confirmed AU. Adalimumab was believed to have caused this adverse drug reaction (ADR). He was switched to etanercept with a good response (psoriasis and psoriatic arthritis). However, he had no evidence of hair regrowth at 6-month follow up. Our patient scored a 7 on the Naranjo scale, which signifies that an ADR is the probable cause of AU. This case highlights that AU is a probable ADR of adalimumab. Further studies are needed to assess the duration and reversibility of hair loss. Patients should be promptly educated regarding its occurrence prior to commencement of therapy in order to minimize any associated psychological impact.

Reference


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Delayed onset of the jarisch – Herxheimer reaction in Lyme disease

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Objectives: To present the clinical and pathological findings indicative of Jarisch-Herxheimer reaction (JHR), describe the natural history and management of JHR and discuss its pathophysiology in light of the reported findings.

The Jarisch-Herxheimer reaction is an infrequent, transient inflammatory syndrome triggered by antibiotic treatment of spirochete infections, namely syphilis. JHR usually manifests as fever, chills, headache, flushing, hypotension, tachycardia, myalgias and exacerbation of existing cutaneous lesions. Symptoms resolve without intervention within 12–24 h; however, JHR can rarely be fatal. JHR’s pathogenesis remains poorly understood and it is histopathologically rarely reported. Herein, we report a 47-year-old woman, with solitary erythema migrans and positive Lyme disease serology, who presented for medical care 14 days after commencement of doxycycline therapy. She complained of malaise, facial flushing, gingival erythema, and acquisition of additional plaques characterized by swelling, increased erythema, pruritus, and exfoliative scale. Punch biopsies demonstrated subacute to chronic spongiform psoriasiform reaction patterns with a superficial lymphocytic infiltrate. By Borrelia-specific immunohistochemistry, spirochetes were found in the deep dermis, unassociated with inflammation, and focally in the upper spinous layer, associated with spongiosis. Borrelia burgdorferi DNA was detected by nested polymerase chain reaction. Doxycycline was discontinued, and symptoms and signs resolved within a few days. Liberation of endotoxin-like materials (e.g., lipoproteins) from degenerating spirochetes and concomitant cytokine production is the suspected cause of JHR and supported by the finding of lesional spirochetes. Alternatively, a reversal reaction with a delayed-type hypersensitivity reaction is also a plausible cause based on spirochetes found in the lymphocytic spongiform dermatitis.

References

Mycobacterium avium complex infection of the knee-joint after rituximab treatment for sclerodermatomyositis


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A 49-year-old Caucasian male with a long-standing history of sclerodermatomyositis presented with right medial thigh swelling over 6 months. Traditional disease modifying anti-rheumatic drugs having failed, rituximab intravenous infusions was commenced along with oral prednisone. Examination revealed a large (>10 cm) fluctuant mass on the medial distal right thigh with overlying erythema. MRI revealed a large multiseptated complex cyst in the popliteal fossa between the medial head of the gastrocnemius and semimembranosus tendon. Mycobacterium avium intracellulare (MAC) was cultured from synovial fluid aspirated from the knee joint. The mass was surgically resected and histopathologic analysis revealed necrotizing granulomatous inflammation. Special stains for acid fast bacilli were negative, nucleic acid testing of the tissue identified DNA sequences specific for MAC. Immunohistochemistry revealed the majority of the inflammatory infiltrate consisted of histiocytes stained by CD68 with a significant number of T-lymphocytes stained by CD3. There was a total absence of B-lymphocytes onCD20 andCD79a staining.

Infection with “mycobacteria other than tuberculosis” has been reported with the use of rituximab in inflammatory myopathies (1). Although extensive work illustrating the importance of cellular immune mechanisms for protection against mycobacterial infection has largely relegated B-cell biology to an afterthought, it has been illustrated that B lymphocytes, through a variety of interactions with the cellular immune response, play previously under-appreciated roles in shaping host defense against non-viral intracellular pathogens, including mycobacteria via impairing activation and clonal-expansion of T-lymphocytes (2). Our case confirms the medical relevance of this observation previously noted only in the murine model.

References


IgG4 related disease in dermatology: Case and update

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IgG4 related disease (IgG4-RD) is increasingly widely recognised. Moreover, IgG4 staining can occur in other inflammatory diseases. We report a case of IgG4 staining of an erythematous and itchy plaque on the skin of the head and neck.

A 82-year-old woman with quiescent hyperthyroidism had clinical and radiological evidence of skin inflammation with no systemic involvement. A biopsy was consistent with IgG4 disease. There was a marked but incomplete response to topical and oral steroids.

We discuss the association between IgG4 staining and the diagnostic issues that arise when IgG4 criteria are fulfilled in patients with other skin inflammatory conditions. The skin lesions of IgG4-RD have been poorly characterized and may arise not only from direct infiltration of plasma cells but also from IgG4-mediated inflammation. We will also discuss previous categorizations of this rare skin condition in the literature.

A beneficial role for colchicine in reducing granulation tissue in junctional epidermolysis bullosa which caused anaemia after silicone dressings were started

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Junctional epidermolysis bullosa (JEB) is a recessive type hereditary vesiculobullous eruption. A 41-year-old female with intermediate, generalized JEB due to two different LAMB3 mutations, who had given birth to two unaffected children, had been well with only limited erosions, controlled with gentian violet. After the National EB dressing scheme was established, she began using silicone dressings and developed exuberant granulation tissue under the dressings. She had failed to respond to changes to her silicone dressing regime and was unable to wean off dressings. She became profoundly anemic with Hb of 78 g/L recurring despite transfusions and antibiotics.

On the basis that colchicine may inhibit cell proliferation and be anti-inflammatory, this was initiated. After colchicine, her EBDASI activity score reduced from 30 to 23 and her haemoglobin level improved from 95 to 128 g/L. Colchicine has been used in a various dermatological conditions, mainly in treating neutrophilic dermatoses. A small case study on its use in EB acquisita (EBA) but not in EB has been documented in the literature. The exact mechanism of colchicine in assisting reduction of the blistering, erosions, and granulation tissue in JEB is unclear. The anti-inflammatory and...
anti-mitotic properties of colchicine may be partially responsible for this process.

A rare case of urethral involvement in erythema multiforme (EM) major
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We present the case study of a 27-year-old Nepalese male who was transferred to an intensive care unit at a tertiary hospital with symptoms of an upper respiratory tract infection (URTI) and erythema multiforme (EM) major. He had bilateral follicular tarsal and palpebral conjunctivitis as well as urethral inflammation with a yellowish-green discharge. He complained of severe dysuria and increased urinary frequency. This was on a background of taking oral amoxicillin/clavulanic acid tablets for 5 days for a suspected bacterial URTI in the community. Sexually transmitted infection (STI) screening including T Pallidum antibodies, Chlamydia antibodies IgM and IgA, Chlamydia trachomatis PCR and Neisseria gonorrhoea PCR were all negative. Urine culture was negative for a urinary tract infection. He was treated with 0.5 mg/kg/d of prednisolone. His urinary symptoms and signs were closely monitored with the measurement of daily urine output to monitor for urinary retention and urethral perforation. A urinary alkalinizing agent was given regularly to alleviate the symptoms of dysuria. Within 5 weeks, the prednisolone was successfully tapered off and there was a complete resolution of mucosal inflammation and erosions by 6 weeks. EM major typically involves more than one mucosal membrane but urethral involvement is rare. There has been one case of urethral perforation secondary to toxic epidermal necrolysis syndrome (TEN) in the literature. Although rare, genitourinary examination is mandatory when EM is suspected, and early intervention can prevent significant adverse outcomes, including urethral strictures or perforation.

Reference


How a presentation to medical grand rounds on what makes a good dermatology consult improved efficiency of consultations?
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Audits were conducted and presented at the department of dermatology at St. George Hospital every 3 months to assess the clinical effectiveness of the consults and the efficiency of the consulting process. The aim of these audits was to improve the quality of dermatology consultations. There is only one unaccredited dermatology registrar at the hospital. Between 1st of February 2015 and 31st of October 2015, a total number of 222 consultations were carried out. The audits in the first 3 months showed that the consultation was significantly delayed when the consult requests were made in the afternoons. As dermatology clinics are operating on most afternoons of the week, a rapid review of the consultations was often challenging. Other issues included the dermatology consultations being requested on the day of the planned discharge for the patient, making it difficult to coordinate in a timely manner. The audit was presented at medical grand rounds on 16th of April 2015 in order to educate the referring physicians about how to obtain the most appropriate and time efficient dermatology consultations. Following the presentation, a few positive changes have been made, including the consultation being requested earlier during the admission and being requested in the early morning. The quality of the consultations also improved with most of the dermatological issues being acute to semi-acute requiring inpatient investigations and management, rather than longer standing non-urgent skin problems which are better addressed as an outpatient. The time to consultation has reduced from 68 to 47 min.

Treatment of old world cutaneous leishmaniasis – The Monash health experience
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Leishmaniasis is a disease caused by protozoan parasites of the genus Leishmania, and is transmitted by phlebotomine sandflies. Old world leishmaniasis is endemic in areas of the Middle East, Mediterranean, North Africa, the Indian subcontinent and Central Asia, while New World disease is confined to the Americas. The incidence of leishmaniasis has increased in Australia over the past decade, due largely to Old World Cutaneous Leishmaniasis (OWCL) imported through migrants and refugees from Afghanistan, Iran and Pakistan and via Australians traveling to endemic areas.

Monash Medical Centre, a tertiary referral hospital in South Eastern metropolitan Melbourne, has Victoria’s largest caseload of OWCL due to its proximity to Australia’s main Hazara community. This paper describes our experience over a 15-year period in the management of OWCL with a range of treatment modalities, including combination intralesional sodium stibogluconate and cryotherapy, topical paromomycin and oral miltefosine.

Reference

Juvenile pityriasis rubra pilaris: An atypical presentation in type 5 skin with a treatment course complicated by social issues

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This poster presents the case of a 12-year-old boy of Afro-Caribbean background who was admitted to Queens Hospital, London with a rapid-onset eczematous rash predominantly affecting his limbs. The rash was initially treated by the paediatricians as eczema although the child had no previous history of atopy. When the rash worsened and became more widespread Dermatology input was sort. Due to the well-defined nature of the scaly plaques occurring on the limbs and body a differential diagnosis of Psoriasis and Allergic Contact Dermatitis were favoured. Histopathology examination of a skin biopsy specimen showed findings consistent with Juvenile Pityriasis Rubra Pilaris (JPRP). This was an unexpected diagnosis.

The child was successfully managed with UVB therapy but his treatment course was complicated by a slow initial response to therapy and issues surrounding school avoidance and bullying at school due to the appearance of his skin. Psychology services were utilised for support with social matters and the child’s skin was clear at completion of UVB course. After 6 months follow up his skin remains clear.

This poster will discuss this particular case and include a brief literature review of current evidence regarding diagnosis and management of JPRP.

A case of lymphoedema-associated disseminated blue naevi mimicking metastatic melanoma

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There have been reports of blue naevi with satellite lesions, mimicking melanoma with satellite metastases.1 While malignancies such as melanoma have been described to occur in lymphoedematous areas,2 there are no reports describing the development of multiple blue naevi associated with lymphoedema. We report a case of a 78 year-old female with long-standing bilateral lower limb lymphoedema, who presented with multiple blue macules on her right lower limb, which gradually progressed and formed large areas of blue discolouration over a 5-year period. These lesions clinically and dERMoscopically resembled blue naevi. Skin biopsies revealed dermal melanocytic proliferation with features suggestive of atypical blue naevi. PET/CT imaging was negative for FDG-avid metastatic disease. The pathogenesis of these disseminated blue naevi is unclear, however, local immunosuppression, as well as formation of collateral lymphovascular supply and subsequent environment rich in growth factors, may both play a role.

References


Multiple keratoacanthomas developing over skin graft and donor site

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A 93-year-old woman presented at 3 month follow up with multiple keratoacanthomas (KAs) around the edges of the skin graft for excision of a KA on her right shin. A KA was also noted on the centre of the donor site of the left thigh. All lesions were consistent with KA on histopathology and subsequently curettaged with clear margins. Imiquimod 5% cream was also prescribed. However, further KAs developed at the edges of the graft site 3 months later. Acitretin (20 mg once daily) was then commenced for 5 months with resolution of the tumours.

KA formation after surgical trauma needs to be considered as a known postoperative complication, especially in old or immunocompromised patients. We postulated theories for the development of KAs after skin grafting. Oral retinoids should be considered early for treatment of such KAs for better cosmetic results and resolution without recurrence.

References


Rosai-dorfman disease with autoimmune haemolytic anaemia in an adult

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Rosai-Dorfman disease (RDD), also known as sinus histiocytosis with massive lymphadenopathy is a rare pseu-
dolymphomatous disorder, classified under the non-Langerhans cell histiocytosis. Patients with this condition classically present with bilateral painless cervical lymphadenopathy and fever. Extranodal involvement occurs in 43% of reported cases, with the skin being the commonest site.

The pathogenesis of RDD remains elusive. An immune dysregulatory process has been proposed as some patients with RDD have associated autoimmune disorders, including autoimmune haemolytic anaemia and rheumatoid arthritis. However, the coexistence of autoimmune haemolytic anaemia is rarely observed in adults.

Herein, we report a case of RDD involving the skin and nasal mucosa in a 55-year-old lady who subsequently developed warm autoimmune haemolytic anaemia. We also highlight the importance of recognising the distinctive histopathological findings of RDD in the diagnosis of RDD with extranodal manifestation.

References


Anxiety and depression in patients with atopic dermatitis in a Singapore tertiary dermatological institute

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Publish consent withheld.

The utility of dermoscopy in the diagnosis of amelanotic nodules

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Introduction: Amelanotic nodules can be diagnostically challenging.

Objective: To describe the dermoscopic features of a series of benign and malignant amelanotic nodules and to determine whether dermoscopy improves diagnostic accuracy.

Methods: Retrospective analysis of 125 malignant amelanotic nodules (39 nodular BCC, 51 SCC/KA, 27 melanomas, 6 Merkel cell carcinomas) and 27 benign amelanotic nodules (9 dermatofibroma, 8 naevi, 5 seborrhoeic keratosis, 5 haemangiomas) collected between 1 September 2009 and 1 September 2014. Macroscopic and dermoscopic images were evaluated by two examiners in consensus, who were unaware of the histopathologic diagnosis. First, the macroscopic image was viewed and clinically diagnosed with the unaided eye. Then, the dermoscopic image was viewed and diagnosed.

Results: In terms of classifying amelanotic nodules as benign or malignant, sensitivity of unaided eye and dermoscopy were similar (96% vs. 98%, p = 0.25). However, diagnostic specificity of dermoscopy was superior to unaided eye (89% vs. 67%, p = 0.05). Dermoscopy improved sensitivity for diagnosis of SCC (98% vs. 82%, p = 0.01) and melanoma (57% vs. 11%, p = 0.05). By using dermoscopy, there were 51 instances (21%) where the most likely diagnosis was altered from incorrect to correct. This included 12 nodules where dermoscopy resulted in the diagnosis being correctly overturned from benign to malignant. This also included 8 nodules that with the unaided eye were incorrectly diagnosed as SCC or BCC, when they were melanomas.

Conclusion: Dermoscopy may assist in the diagnosis of amelanotic nodules. Amelanotic melanomas remain diagnostically difficult.

Recurrent pruritic intertriginous rash with lichenoid papules and purpuric patches: A case report of non-occupational textile dye allergy

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Textile allergic contact dermatitis presenting with lichenoid and purpuric lesions is very uncommon.

We report a case of a 64-year-old female that presented with a recurrent pruritic, intertriginous, purpuric, and lichenoid rash of 1 year’s duration. She was treated with multiple topical steroids, and topical and oral antifungals with no improvement. Multiple erythematous papules and thin annular plaques were scattered on axillary, submammary and inguinal flexures bilaterally. A few larger purpuric plaques were also noted in the flexures. The vaults of the flexures were minimally involved. The labia majora were erythematous and thickened. There were two bilateral and symmetrical purpuric patches noted on upper medial thighs. The differential diagnoses included seborrhoeic dermatitis, contact dermatitis, flexural lichen planus and Galli-Galli disease (non-pigmented variant).

A biopsy revealed intense lichenoid inflammation with eosinophils filling the papillary dermis. European Baseline Series patch tests were negative; however patch tests of
textiles and finishes showed 2 + positive reaction for disperse orange 3 and 1 + positive reaction for disperse blue 85, 106 and disperse orange 1. A diagnosis of lichenoid textile dye contact dermatitis was made. The patient was advised to avoid clothing with these colours with resolution of her symptoms.

Textile allergic dermatitis has a polymorphic clinical presentation and high degree of suspicion is imperative for the diagnosis.

References

1. Laura M et al, Contact allergy from disperse dyes in textiles—a review, Contact Dermatitis, 2012: 68, 65–75
2. Paolo L et al, Clinical and epidemiological features of textile contact dermatitis: an Italian multicentre study; Contact Dermatitis 2014: 70, 544–550

Persistent acne medicamentosa secondary to vitamin B12

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We report a case of severe and persistent acne secondary to vitamin B12 replacement, and subsequent successful reintroduction of vitamin B12 following isotretinoin use.

Whilst acne medicamentosa after vitamin B12 supplementation is well established, the pathophysiological mechanism behind it is yet to be completely understood. Iodine particles, androgenic disturbance, innate immunity changes and direct neutrophil effects are possible mechanisms that are proposed, and this may also depend on genetic susceptibility.

It is well appreciated that alterations in the skin microbiota play an essential role in the development of disease. Recent data suggests that the host vitamin B12 levels have a direct modulatory effect on the transcriptional activity of the skin bacteria, which in turn affects the potential for pathogenesis of the host skin.

This case demonstrates successful reintroduction of vitamin B12 with isotretinoin and dosage modification, a phenomenon that has not been previously described.

Finally, we highlight that the inclusion of acne as a side effect is notably missing on the product information sheet of Vitamin B12 injections.

Oral acanthosis nigricans and Leser-Trelat sign in metastatic serous ovarian carcinoma: Case report and review of literature

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A 69-year-old lady presented with 12-month history of painful oral sensation and a gradual onset of abdominal bloating associated with constipation. Assessment by the dental team did not lead to any specific diagnosis. She was then referred to the dermatology unit for assessment of her generalised pruritus and eruptive seborrhoeic keratoses. Physical examination revealed multiple tiny skin-coloured seborrhoeic keratoses especially on her inner thighs, thickened fissured tongue and extensive acanthosis nigricans-like papillomatous changes on her buccal mucosa. Raised tumour markers and further imaging then led to the diagnosis of high grade metastatic serous ovarian carcinoma.

This is the first case report of Leser-Trelet sign and malignant oral acanthosis nigrican associated with ovarian carcinoma. This case highlights the rarity of the 2 paraneoplastic phenomena and the under-recognition of these important signs by general medical and dental professionals1,2.

References


Fractionated erbium: YAG laser compared to traditional ablative erbium: YAG laser as delivery system for reCell autologous cell harvesting device

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The ReCell Autologous Cell Harvesting Device has been commercially available since 2005 to create an epithelial suspension which can be used to treat conditions of hypopigmentation and depigmentation such as vitiligo or hypopigmented scars.

The technology processes a small sample of the patient’s skin into a non-cultured autologous suspension for immediate application to the prepared wound bed.

Traditionally the wound bed was prepared by dermabrasion or ablative laser.

It is postulated that preparation with a fractionated ablative laser modality would be able to produce equivalent
efficacy, with less morbidity and potential complications compared to a fully ablative laser modality. It is also postulated that a fractionated modality would enable for larger fields to be treated in the one session.

We assess the efficacy of an Erbium: YAG fractionated laser modality for the preparation of the treatment site and compare it with traditional fully-ablative Erbium: YAG laser for the delivery of ReCell in patients with vitiligo and hypopigmented scars.

A case of orf disease in a patient with scleroderma
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Orf, also known as ecthyma contagiosum or contagious pustular dermatitis, is a viral zoonotic disease1 resulting through inoculation of broken or abraded skin by a diseased animal. It mainly affects sheep and goats although various other ruminants and mammals have been reported to be affected and the causative microorganism is the virus, an epitheliotropic DNA virus from the Parapoxivirus group2.

In humans, after a brief incubation period of 3–7 days, an orf lesion appears as a pruritic erythematous macule and then rises to form a papule1. Lesions become nodular and vesicular and progress to a weeping target lesion that ulcerates and forms a dry crust.

In this case report, we present a 70 year-old lady with a history of traumatic injury with a knife to the dorsum of her left hand after cutting lamb. This was followed one-week later with a rapidly expanding asymptomatic erythematous and bullous plaque, typical of an orf lesion. Her plaque was desquamating and complicated by her background of scleroderma, a chronic systemic autoimmune disease.

Diagnosis of orf is usually made clinically and biopsy for histopathology and microbiology is mainly to exclude other diagnoses, which may be suspected such as deep fungal, and mycobacterial infection.

References

Efficacy and safety of dupilumab for moderate-to-severe atopic dermatitis in adults: A pooled analysis of two phase 2 clinical trials
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Publish consent withheld.

Nicotinamide chemoprevention and immunomodulation in melanoma and non-melanoma skin cancer
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Ultraviolet Radiation (UVR) has been identified as the leading cause of melanoma and non-melanoma skin cancer (NMSC). Chemopreventive agents are urgently needed. Nicotinamide, an amide form of vitamin B3, is a precursor to nicotinamide adenine dinucleotide, which is essential for ATP production. By replenishing cellular energy, it reverses the immune-suppressive effects of UVR and enhances repair of damaged DNA. Nicotinamide has been shown to significantly reduce the incidence of pre-malignant actinic keratoses and of NMSCs, although its effects on melanoma incidence are unknown. We investigated the effects of three concentrations of nicotinamide (50 μM, 5 mM, 20 mM) on the viability, proliferation and invasiveness of four melanoma and two melanocyte human cell lines in the presence and absence of UVR. We also studied the tumour specimens from a large double-blinded randomised placebo-controlled clinical trial of oral nicotinamide for skin cancer prevention, to assess, via immunohistochemistry, the effects of nicotinamide on immune cell infiltrates in and around melanomas and NMSCs. We found a significant difference in...
the peritumoral and tumour-infiltrating lymphocytes in tumours arising on nicotinamide compared to those arising on placebo. Further, we found that 50 μM nicotinamide does not affect viability, proliferation or invasion of melanoma or melanocyte cell lines, while the higher concentrations reduced viability and proliferation. Hence nicotinamide does not enhance the growth of melanoma cells and has inhibitory effects at high concentration. These results increase our understanding of the role of nicotinamide as a chemopreventive agent, which can now be assessed in clinical trials of melanoma prevention.

A clinical trial unit in a dermatology private practice
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In the current era of evidence based medicine, regulatory bodies are demanding ever larger and more sophisticated clinical trials be carried out before new therapeutic products are approved. Current phase 3 trials are now carried out in multiple national and international sites and with relatively small numbers of study subjects per site. This requirement has encouraged the increasing number of clinical trials being carried out in the private practice setting. We present a summary of how to integrate clinical trials into your practice, including de-coding abbreviations, what facilities are required, staffing arrangements, legal and ethical regulations and financial implications. As with the freedom of private practice, running clinical trials can be modified to work within your interest field, scope and time pressures; with outsourcing options available for the increasingly stringent legal and ethical requirements.

Subacute cutaneous lupus erythematosus presenting for an eczema trial
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A 54yo male was referred from his general practitioner for enrolment in an eczema trial, for an “eczematous rash” present for >12 months. The patient had been previously treated by two primary care physicians with emollients and intermittent topical steroid therapy with no improvement and great frustration. The rash was photo-distributed; face, upper trunk/back, arms and hands. It was non-pruritic, with an annular pattern (erythematous borders with central clearing) over the arms and hands, and a papulosquamous pattern across the upper back. This was typical of subacute cutaneous lupus erythematosus (SCLE) and this was confirmed on biopsy. This case exemplifies the difficulties in diagnosing SCLE by non Dermatologists, and the need to involve Dermatologists if there is not a rapid response to the standard anti eczema therapy. The importance of diagnosis not only allows for targeted treatment (systemic and topical) and behavioural adjuncts (i.e sun protection), but also screening and monitoring for systemic lupus erythematosus (developing in 10–15% of patients with SCLE).

Chemotherapy induced vesico-bullous disseminated superficial actinic porokeratosis
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Disseminated Superficial Actinic Porokeratosis (DSAP) is the commonest variant of Porokeratoses, commonly seen in fair skin exposed excessive sun exposure.

The classic morphology of well demarcated slightly scaly annular plaques with thread-like keratic rim as well as the histological hallmark “cornoid lamella” are characteristic of this condition.

Exacerbations of DSAP are sometimes linked to various factors including malignancy, immunosuppression, drugs and chemotherapy.

Herein we report a case of exacerbation of the pre-existing DSAP lesions with erythema and vesicle/bulla formation following administration of carboplatin and paclitaxel for uterine sarcoma secondaries complicated by bilateral lower limb lymphedema.

Neither uterine sarcoma nor carboplatin/paclitaxel combination has been reported to trigger/exacerbate DSAP in literature and the bullous form is extremely rare with only one case reported so far.

We propose that an immune mediated intense inflammatory reaction precipitated by chemotherapy and the probable epidermal barrier defect due to defective keratinization of DSAP lesions along with the background of lymphedema as possible mechanisms for bullae formation limited to DSAP lesions in lymphedematous areas.

Clinico-mycological profile of dermatophytosis - A Sri Lankan experience
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Introduction: Dermatophytosis is a global dermatological problem causing a considerable morbidity. Recent data suggest changing trends in epidemiology worldwide and closely related to human migration, cultural practices and
environmental factors. This study aims to find Sri Lankan scenario in this global problem.

**Methodology:** 100 consecutive patients with clinically suspected dermatophyte infection of skin and hair attending pediatric and adult outpatient dermatology clinics in two tertiary care hospitals in Colombo, Sri Lanka were included over 7 months in 2014. Skin scraping for microscopy and culture were performed.

**Results:** Study group comprised 50 children and 50 adults.

Pediatric group had a mean age of 5.47 yrs. Tinea corporis (50%, n = 25) was the commonest clinical presentation, followed by cruris (16%, n = 8) and capitis (12%, n = 6).

Overall, microscopy was positive in 82% (n = 25) while cultures were positive in 66% (n = 55). Commonest organism was Trichophyton rubrum (18%, n = 9) followed by Trichophyton mentagrophytes (16%, n = 8), Microsporum gypseum (14%, n = 7) and Microsporum canis (8%, n = 4).

Among adults, (mean age 42.6 yrs), majority had Tinea corporis (58, n = 19) while 14% had Tinea cruris, 22% (n = 11) had both Tinea corporis and cruris.

Microscopy was positive in 74% (n = 57) while cultures were positive in 58% (n = 29). Trichophyton rubrum was the main pathogen in 40% (n = 20) followed by Trichophyton mentagrophytes in 6% (n = 5).

**Conclusion:** Tinea corporis and tinea cruris were the commonest dermatophysis in both children and adult in our study. T. rubrum and T. mentagrophytes were the commonest pathogens in keeping with the Asian epidemiological pattern. Tinea pedis was uncommon in contrast to other countries possibly reflecting environmental factors and cultural practices.

**Calcinosi cutis, symptom or disease? A unique case of calcinosi universalis**

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Calcinosi cutis is a rare condition involving the cutaneous deposition of insoluble calcium and phosphate salts. Historically, it has been classified into four major subsets based on the suspected aetiology of cutaneous calcification: dystrophic, metastatic, iatrogenic and idiopathic. We report a case of a 51-year-old male, who presented with a 10 year history of small, hard nodules in the buttocks and fingertips. There was no preceding history of dermatomyositis or any other autoimmune disease. He had normal biochemical parameters with a normal serum calcium level (2.41 mmol/L) and a normal phosphate level (1.38 mmol/L). His renal function, vitamin D level, thyroid and parathyroid function were found to be normal. Histopathology of multiple lesions confirmed the presence of widespread focal areas of calcification within the dermis. On the basis of clinical, laboratory and histological findings, the patient was diagnosed with calcinosi universalis in the absence of a known systemic metabolic disorder. On several occasions limited surgical excisions of buttock lumps of calcinosi were performed, but the disease has been progressing slowly. He is currently on diltiazem with out any significant improvement.

This case is presented to discuss the complex processes of cutaneous calcium deposition and the challenges a clinician may face in identifying the cause of disease. We propose a clinical algorithm to assist in the assessment and management of a patient with calcified cutaneous nodules.

**Methadone-induced desquamating eruption – A new case report a decade later**

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Methadone is a synthetic opioid analgesic that has been used in the management of opioid dependence in Australia since 1969. It has a number of adverse cutaneous effects including urticaria, oedema, pruritus and hyperhidrosis. Between 2004 and 2005, an outbreak of a desquamating eruption without systemic symptoms was observed amongst clients of methadone maintenance programs in Sydney, New South Wales. This outbreak became the focus of a large-scale epidemiological investigation that was unable to firmly establish causation. Since then, no further cases have been reported in the literature. A decade later, we report another case of methadone-induced desquamating eruption in a 54-year-old gentleman. Our patient developed a vesiculopapular eruption across his palms and an erythematous maculopapular eruption of the lateral trunk following the intravenous injection of methadone syrup. He was systemically well and routine blood and serological tests including HIV, hepatitis B and C, and syphilis were all unremarkable. He was treated with oral prednisolone weaning over 7 days, topical corticosteroids, and emollients. The eruption persisted for 5 days before progressive sheet-like palmarplantar desquamation, which persisted for several weeks. The desquamating eruption associated with methadone is a perplexing entity that has recently re-emerged as an ongoing challenge for clinicians. Prompt identification and reporting of such cases is needed in order to establish the underlying cause of this condition.

**Reference**


**A striking facial rash leading to the diagnosis of a rare haematological malignancy**

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This is a rare case of a 74-year-old female who presented with facial erythema which could have been clinically...
mistaken as rosacea. However, clinical suspicion lead to a biopsy which revealed atypical lymphoid infiltrate. A haematological opinion was sought and all further investigations were unremarkable and deemed normal. Lack of clinical response and further cutaneous biopsies and peripheral blood investigations revealed a rare form of acute myeloid leukemia (AML). The diagnosis of Blastic plasmacytoid dendritic cell neoplasm (BPDCN), a rare and aggressive haematological malignancy, was made. This case highlights the importance of high clinical suspicion with regards to atypical presentations. Repeated biopsies and investigations were performed until ultimately the correct diagnosis was reached.

Think before you ink

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Here we present two cases of eruptive keratoacanthomas within a recent tattoo. Both patients were scheduled for excision of multiple lesions as partial biopsies had been misinterpreted as well differentiated squamous cell carcinoma (SCC). Disfiguring surgery has been avoided with the use of oral acitretin in these patients. Due to the rise in body art in recent years more cases are likely to occur. Due to the rise in body art in recent years more cases are likely to occur.

Two-year safety of apremilast in patients with moderate to severe plaque psoriasis: Results from ESTEEM 1

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Introduction: ESTEEM 1 (ClinicalTrials.gov: NCT01194219), a phase 3, randomized trial with an open-label extension, evaluated the efficacy and safety of apremilast 30 mg BID (APR) in patients with moderate to severe plaque psoriasis.

Methods: Safety is described for APR-exposure periods 0–≤52 and >52–≤104 weeks.

Results: Of 804 patients treated with APR during 0–≤52 weeks, 444 continued in the second year. Adverse events (AEs) occurring in ≥5% of patients during 0–≤52 weeks were diarrhea (18.7%), nausea (15.2%), upper respiratory tract infection (URTI; 18.2%), nasopharyngitis (15.7%), tension headache (9.6%), and headache (6.5%), and during >52–≤104 weeks were URTI (9.7%) and nasopharyngitis (6.8%). In both periods, most AEs were mild or moderate; severe AE rates were low (6.2% 0–≤52 weeks; 5.2% >52–≤104 weeks). Diarrhea and nausea rates were lower during >52–≤104 weeks (1.8%/0.7%) than 0–≤52 weeks (18.7%/15.2%). AE-related discontinuation rates were low (7.8%/0–≤52 weeks; 2.0%/>52–≤104 weeks). Depression rates were 2.0% (0–≤52 weeks) and 0.5% (>52–≤104 weeks). Suicidal ideation, attempt, or completion was not reported up to 104 weeks. Serious AE rates were 4.5% (0–≤52 weeks) and 5.4% (>52–≤104 weeks). No serious diarrhea was reported at either period. There was 1 case each of serious depression during 0–≤52 and >52–≤104 weeks. Six (1.4%) serious infections (none opportunistic) reported during >52–≤104 weeks. No cases of TB reactivation were reported. Among patients with evaluable body weight data, mean/median percent change from baseline was −2.07%−1.59% at Week 52 (n = 475) and −1.94%−1.56% at Week 104 (n = 202). There was 1 death during each 0–≤52 and >52–≤104 weeks. There were no clinically meaningful changes in laboratory measurements.

Conclusions: APR demonstrated acceptable safety and tolerability for up to 104 weeks.

Treatment of diffuse superficial actinic porokeratosis using fluorouracil chemowraps

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Diffuse superficial actinic porokeratosis (DSAP) is an uncommon disorder of keratinisation presenting with numerous characteristic annular plaques usually distributed over photoexposed regions of the arms and legs, up to 1 cm in diameter which begin as skin coloured becoming increasingly red over time, particularly during summer. It is more common in those with Fitzpatrick type 1 and 2 skin with increased presentation during the summer months and is seen more commonly in females. Lesions are identified by large number and presence of a peripheral keratotic rim (Cornoid lamella) with an atrophic centre, usually located on distal limbs sparing the palms and soles. The name DSAP is used to separate it from non actinic related porokeratosis (porokeratosis of Milbelli, Diffuse superficial porokeratosis, linear porokeratosis, punctate porokeratosis and porokeratosis palmaris et plantaris disseminata)

Numerous treatments of DSAP have been reported including liquid nitrogen cryotherapy, topical 5 fluorouracil, topical imiquimod, topical retinoids, CO2 ablative laser, curette and cautery and surgical excision.
We present the case of an 80-year-old male with long-standing DSAP on his bilateral forearms. His lesion leading to pruritus with no other treatment apart from efudix (5% fluorouracil cream – iNova Pharmaceuticals) giving relief. A trial of twice weekly efudix chemowraps technique gave marked improvement in symptoms. The fluorouracil chemowrap technique has previously been reported for treatment of squamous cell carcinoma (adjuvant treatment), Bowen’s disease and hypertrophic actinic keratosis. This is the first reported use of fluorouracil chemowraps for treatment of DSAP and demonstrates further uses of this modality.

Cicatricial alopecia, nail dystrophy and bilateral deafness

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We present the case of an 84-year-old female who developed end stage cicatricial alopecia associated with nail dystrophy, typical clinically of lichen planus type. This coincided with development of progressive bilateral sensorineural deafness necessitating bilateral cochlear implants. Although lichen planus often involves mucous membranes, otic signs and symptoms are rarely considered. We review the available literature.

Reference


Severe dystrophic calcinosis cutis: The need for early intervention and optimal treatment of juvenile dermatomyositis to prevent debilitating sequela in adulthood

A 71-year-old gentleman with a history of non-melanoma skin cancer and B-chronic lymphocytic leukaemia (B-CLL) presented with a recently developed lesion on the left posterior shoulder. This was a translucent and mildly erythematous papule, clinically consistent with a basal cell carcinoma. Excision revealed a dense lymphocytic infiltrate favouring a diagnosis of B-CLL. The patient was on no active treatment as his disease was thought to be stable.

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Cutaneous leukaemic infiltration of neoplastic cells results in an extramedullary manifestation of leukaemia, broadly termed leukaemia cutis (LC). LC is often characterised by nodular lesions, however varying colour and morphology can often cause clinical ambiguity as in this case.

A case series of 10 patients with steroid resistant alopecia areata successfully treated with azathioprine

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We describe 10 patients with moderate to severe scalp alopecia areata, which reoccurred despite systemic corticosteroid treatment. In this cohort of patients there were 7 females and 3 males with an average age of 38 years. Patients were started on 50 mg of azathioprine and dosing regimen ranged from 25 mg to 200 mg per day depending on stage of treatment. The average duration of treatment was 3.5 years and all patients demonstrated near to complete regrowth of scalp hair. Currently very little literature and evidence exists regarding the use of azathioprine in the treatment of alopecia areata as mainstay treatment. We found azathioprine be a very effective second line treatment for steroid resistant alopecia areata in our cohort of patients.

Two cases of generalised granuloma annulare successfully treated with acitretin and narrowband UVB therapy

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Generalised granuloma annulare is a widespread skin disease, which poses significant treatment challenges due to its recalcitrant nature and lack of evidence for treatment. We report two cases of generalised granuloma annulare treated successfully with a combination of acitretin and narrowband UVB. This combination has not been previously reported and represents a safe and efficacious therapy.

Intralesional MTX injections for nodular cutaneous amyloidosis

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Primary localized nodular cutaneous amyloidosis (PLCNA) is a rare form of localized cutaneous amyloidosis that is characterized by nodules located on the extremities, trunk, genitalia or face. This condition predominantly occurs in the sixth and seventh decades of life without any predilection to gender. Typically, it is difficult to manage and previous treatments include cryotherapy, electrodesiccation, curettage, dermabrasion, etretinate, carbon dioxide (CO2) laser therapy and excision.

A search of the literature revealed no reports on the use of intralesional methotrexate for the treatment of PLCNA. We report a case of PLCNA where intralesional methotrexate has been employed with good effect.

Lichenoid contact dermatitis secondary to methylisothiazolinone

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Methylisothiazolinone/methylchloroisothiazolinone (MI/MCI) are broad spectrum preservatives widely used in cosmetics, household and industrial products. It is well known that MI/MCI cause allergic contact dermatitis. This has seen restrictions placed on the concentrations of these agents used products.

We report a case of lichenoid contact dermatitis secondary to MI not previously described.

52-Week efficacy in patients with moderate to severe psoriasis continued on apremilast or switched from etanercept: The LIBERATE study

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Introduction: The phase 3b LIBERATE study (Clinical-Trials.gov: NCT01690299) evaluated apremilast and etanercept efficacy/safety in biologic-naive patients with moderate to severe plaque psoriasis.

Methods: Patients were randomized 1:1:1 to placebo (PBO), apremilast 50 mg BID (APR), or etanercept 50 mg QW (ETN) through Week 16; thereafter, all patients received APR. Efficacy through Week 52 is reported.

Results: The analysis included 250 patients (PBO, n = 84; APR, n = 85; ETN, n = 83). At Week 16, PASI-75 achievement (primary endpoint) was greater with APR (50.8%) and ETN (48.2%) vs. PBO (11.9%; p < 0.0001, both; APR vs. ETN, p = 0.2565, post hoc); PASI mean percent change from baseline was −58.0% (PBO), −61.0% (APR), and −69.1% (ETN). At Week 52, PASI-75 achievement was 46.4% (PBO/APR: 6.78; APR/ETN: 4.11) vs. Weeks 0–16 (PBO: 8.27; APR: 6.66; ETN/APR: 4.11). At Week 16, PASI-75 achievement was 50.6% (APR/APR), 55.4% (ETN/APR); PASI mean percent change from baseline was −71.1%, −75.0%, and −75.4%, respectively. During Weeks 0–16 and Weeks 16–52, most AEs were mild to moderate in severity. Common AEs (≥5% of patients), including diarrhea, nausea, and headache, did not increase with prolonged APR exposure (APR/APR). Based on exposure-adjusted incidence rates/100 patient-years, no increase in AE-related discontinuations was seen during Weeks 16–52 (PBO/APR: 6.78; APR/APR: 6.66; ETN/APR: 4.11) vs. Weeks 0–16 (PBO: 8.27; APR: 6.66).
Conclusions: In patients with moderate to severe plaque psoriasis, APR demonstrated efficacy vs. PBO at Week 16, which was sustained to Week 52. ETN/APR patients experienced sustained efficacy, with no clinically significant safety findings through Week 52.

Psoriasis area and severity index and weight change during apremilast treatment of moderate to severe plaque psoriasis (ESTEEM 1)
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Introduction: In the ESTEEM 1 study (ClinicalTrials.gov: NCT01194219), apremilast treatment was effective in patients with moderate to severe plaque psoriasis and was also associated with weight loss. This post hoc analysis examined the relationship between efficacy and weight loss in ESTEEM 1.

Methods: Patients (n = 844) were randomized (2:1) to apremilast 50 mg BID (APR, n = 562) or placebo (PBO, n = 282). At Week 16, all PBO patients switched to APR through Week 52 (PBO/APR). During randomized treatment withdrawal (Weeks 52–52), APR patients with PASI-75 at Week 52 were re-randomized (1:1) to continue APR (APR/ APR) or switch to PBO (APR/PBO); PBO/APR treatment continued. Pearson correlation coefficients (r) were determined between percent changes from baseline in body weight and PASI score at Week 16 and Week 52. The proportions of patients with weight loss from baseline >5%/≤5% (WtLoss/no WtLoss) and who achieved/did not achieve PASI-75 at Weeks 16 and Week 52 were also examined.

Results: Percent change from baseline weight was not correlated with percent change from baseline PASI score at Week 16 in the APR group (Pearson r = 0.11) or at Week 52 among all APR-exposed patients (Pearson r = 0.02). At Week 16 among APR/WtLoss patients (n = 71) and PBO/WtLoss patients (n = 15), PASI-75 was/was not achieved by 42.5%/57.7% and 0.0%/100.0%, respectively (APR/no WtLoss patients [n = 425]: 55.5%/64.2%; PBO/no WtLoss patients [n = 251]: 5.6%/95.5%). Among PBO/WtLoss patients (n = 80) and PBO/APR/WtLoss patients (n = 52), PASI-75 was/was not achieved by 41.3%/58.7% and 54.4%/45.6%, respectively (APR/APR/WtLoss [n = 251]: 40.6%/59.4%; PBO/APR/no WtLoss [n = 109]: 26.4%/72.7%).

Conclusions: During 52 weeks of APR treatment, a relationship between clinically meaningful weight loss and efficacy was not established.

Latest developments in intravaginal procedures
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Publish consent withheld.

Intratumoural heterogeneity of ki67 and p16 informs on survival in melanoma
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Introduction: During progression, melanoma cells may undergo changes between a proliferative and an invasive state resulting in tumours where subpopulations of cells display distinct functional capabilities. This intratumoural heterogeneity can be observed through patterns of staining for different proteins using immunohistochemistry. Currently, little is known on whether this heterogeneity may independently inform on melanoma survival.

Methods: Melanoma tumour samples were collected from patients with stage IB and II melanoma referred for sentinel lymph node biopsy at the Princess Alexandra Hospital between 1998 and 2007. Information on disease progression was obtained prospectively until February 2013 and information on death was obtained through the National Death Index. Proteins associated with proliferation (Ki67 and p16) and epithelial-mesenchymal transition (twist1) were analysed by immunohistochemistry. Heterogeneity was assessed according to patterns of positivity across tumour sections. Survival analysis was performed using cox regression analysis.

Results: Analysis was conducted on 183 patients. A gradient of Ki67 from high to low positivity from superficial to deep portions of the tumour was associated with improved melanoma survival on univariate analysis. The presence of heterogeneity of p16 was associated with worse survival on univariate analysis. P16 heterogeneity maintained significance on multivariate analysis, adjusting for other prognostic factors including sex, age at diagnosis, Breslow thickness, ulceration and SLN status (HR 8.562, 95% CI 0.986–70.865, p = 0.05).

Conclusions: Pattern of Ki67 and p16 positivity within melanoma tumours is important in predicting melanoma outcome. These results suggest that heterogeneous positivity of p16, a protein involved in the cell cycle, is associated with poor survival.
Secukinumab delivers greater improvement in health-related quality of life compared to ustekinumab in subjects with moderate to severe plaque psoriasis: 16-week data from the CLEAR study

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Introduction: Here we report the 16-Week PatientReported Outcomes from the ongoing CLEAR study, which is comparing efficacy/safety of secukinumab (an anti-IL-17) vs. ustekinumab (an anti-IL-12/23) in adults with moderate to severe plaque psoriasis.

Methods: Subjects were randomized 1:1 to receive subcutaneous injections of secukinumab (300 mg) or ustekinumab (per label). Secukinumab was administered at Baseline, Weeks 1, 2, 5, and 4, and then every 4 Weeks; ustekinumab at Baseline and Week 4, then every 12 Weeks. Exploratory objectives included health-related quality of life (HRQoL), including changes in the DLQI, patient assessment of psoriasis symptoms (pain, itching and scaling), and, for subjects with psoriatic arthritis (PsA), the Health Assessment Questionnaire-disability index (HAQ-DI).

Results: At Weeks 4, 8, 12, and 16, more subjects achieved a DLQI score of 0 or 1 with secukinumab vs. ustekinumab (at Week 16: 71.9% and 57.4%, respectively; p < 0.0001). Total DLQI change from Baseline was greater with secukinumab vs. ustekinumab at all time-points (p ≤ 0.002). At Week 16, subjects on secukinumab had mean decreases of 81% in pain, 79.5% in itching, and 86.5% in scaling scores, and these differences were greater vs. ustekinumab (p < 0.05 for each). In subjects with PsA, the proportion achieving a decrease of at least 0.5 (minimum clinically important difference) in their HAQ-DI score was greater with secukinumab (54.9%) vs. ustekinumab (26.5%).

Conclusion: Secukinumab treatment has demonstrated superiority to ustekinumab up to Week 16 in improving HRQoL of subjects with moderate to severe psoriasis.

Reference:


A review on dermatological side effects of current treatment regimens in lung transplant recipients

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According to the 19th annual report of the Australia and New Zealand Cardiothoracic Organ Transplant Registry published in 2014, there have been 2592 lung transplants performed in Australia since 1986. Of these, 1510 have survived and this number continues to grow due to the significant improvement in the survival of organ transplant recipients as a result of improved immunosuppressive protocols. Newer immunosuppressive strategies are associated with better graft survival and fewer long-term side effects. As survival rate improves, morbidity and mortality related to these long term treatments become more significant. Cutaneous side effects of these medications have been of concern to transplant physicians for a long time. This is particularly important in lung transplant recipients since they often require long periods of azole antifungal treatments due to a high incidence of invasive fungal infections. Voriconazole, the recommended first-line azole treatment for invasive aspergillosis, is associated with multiple adverse dermatologic reactions including photosensitivity, pseudoporphyria and cheilitis. It also has been identified as an independent risk factor for development of squamous cell cancers. Furthermore, heart and lung transplant recipients have a higher risk of keratinocyte cancers than renal transplant recipients. This correlates with the level of immunosuppression required in different organ transplant to prevent rejection of the transplanted organ. We reviewed literature on the current regimens after lung transplantation and their common dermatological side effects including skin cancers. Dermatologists should be familiar with the common side effects of these regimens as organ transplant becomes increasingly common and survival rate improves.

References


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A solitary dystrophic thumb nail that did not respond to topical treatments was biopsied and a granulomatous reaction pattern suggestive of sarcoid was found

J. Shannon

Second Skin Dermatology, Gwynneville, New South Wales, Australia

A 67-year-old man presented with a six-month history of a dystrophic right thumb nail. There was no preceding his-
ory of trauma and no other systemic symptoms. A trial of topical antifungal was not successful, nor a trial of potent topical steroid. A biopsy through the nail matrix was obtained - and a granulomatous reaction pattern consistent with sarcoid was found. CXR, Xray of hands, and blood tests were all normal. Intraleisional steroids were injected fortnightly for 6 months.

Case report of cryptococcus presenting as a bland non healing ulcer on the thigh of a renal transplant patient
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A 51-year-old renal transplant patient presented regarding an “ingrown hair” on his thigh. This had developed into a sharply cut out, 2 cm diameter ulcer. Swabs had grown multiply sensitive staph and he was on appropriate antibiotics for this. He was symptomatically well. After a month of non progression nor healing an incisional biopsy was performed - principally to exclude Pyoderma gangrenosum. Cryptococcus was found densely infiltrating the biopsy. The patient underwent intensive investigations to ensure there were no other deposits of cryptococcus - and none were found. He was treated with long course oral fluconazole. The ulcer has healed in a scar.

Hidroadenocarcinoma of the sole of foot presenting as a “cyst”
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A 49 year old renal transplant patient presented regarding an “ingrown hair” on his thigh. This had developed into a sharply cut out, 2 cm diameter ulcer. Swabs had grown multiply sensitive staph and he was on appropriate antibiotics for this. He was symptomatically well. After a month of non progression nor healing an incisional biopsy was performed - principally to exclude Pyoderma gangrenosum. Cryptococcus was found densely infiltrating the biopsy. The patient underwent intensive investigations to ensure there were no other deposits of cryptococcus - and none were found. He was treated with long course oral fluconazole - which caused significant side effects resulting in dose reduction. A year later he remains well, but still on fluconazole. The ulcer has healed in a scar.

Pityriasis rubra pilaris treated with methotrexate, acitretin and adalimumab
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A 64-year-old man with diabetes and a previous history of melanoma presented with a non-tender 3 cm diameter cystic lesion on the undersurface of the heel of his foot. MRI, aspiration and cytology were none diagnostic. The tumour was excised and diagnosed. Further excision with margins, requiring a pedicle graft was undertaken.

Cutaneous leiomyoma in hereditary leiomyomatosis and renal cell cancer syndrome
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Cutaneous Leiomyomas (CL) are rare tumours of smooth muscle origin associated with disorders including Hereditary Leiomyomatosis and Renal Cell Cancer Syndrome (HLRCC). In this case report and literature review, we describe a patient with cutaneous leiomyoma and papillary renal cell carcinoma occurring in the context of confirmed HLRCC syndrome. HLRCC is an autosomal dominant syndrome caused by loss of function mutations in the FH gene. Sufferers of this disorder are predisposed to the development of tumours of the skin and/or uterus, with a further subset of HLRCC families at risk of papillary renal cell carcinoma. This syndrome is exceedingly rare and carries with it a significant rate of mortality. Only 180 families worldwide are thought to be affected by HLRCC. Its manifestation in the skin is that of smooth muscle tumours including piloleiomyomas, genital leiomyomas and angioleiomyomas. These cutaneous tumours are primarily managed surgically, however destructive techniques can be employed but are less efficacious. If untreated, they will continue to grow, with new lesions continually appearing. They have a high rate of recurrence, with reappearance between 6 weeks to 15 years post removal. Pain related to these tumours should be managed with medications that affect smooth muscle contraction and topical and oral medications to control neuropathic pain. A full body skin exam is recommended every 2 years, with referrals to other specialties for gynaecological and/or urological examinations annually. Given its’ multi-system effects, management of this condition requires a multidisciplinary approach with the dermatologist undertaking an important role.

References

Surgical management for the treatment of chronic eyelid lymphedema
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Lymphedema occurs when there is a deficit in the lymphatic drainage system, leading to an abnormal accumulation of extracellular fluid, which can be both grossly disfiguring and difficult to manage. More than aesthetics, lymphedema is risk factor for infection including cellulitis. Lymphedema typically affects a whole limb, and localised oedema is infrequently encountered. Lymphedema of the eyelid is generally acute, resolves spontaneously and occurs following various surgical procedures. Chronic eyelid lymphedema is far less common and occurs on either congenital basis (aplasia or hypoplasia of the lymphatic vessels) or an acquired basis (surgery, radiation, trauma to the lymphatic vessels). Chronic eyelid lymphedema is typically managed with lymphatic massage; however, this condition is difficult if not impossible to completely treat using this method alone. Surgery, involving the removal of subcutaneous tissues, is a promising recent intervention with several reported cases in the literature. Here we present our own case of chronic upper and lower eyelid lymphedema in a 68-year-old male, which developed post parotidectomy, radical neck dissection and reconstruction, treated successfully by debulking blepharoplasty. We present this case in the context of review of the literature to examine the use, approach and success of the surgical management of chronic eyelid lymphedema.

References

Secukinumab 500 mg shows superior efficacy across subject body weight groups: Pooled analysis of phase 3 ERASURE and FIXTURE trials
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Introduction: Obesity is a frequent comorbidity in plaque psoriasis. Secukinumab, an anti–IL-17A monoclonal antibody, has demonstrated efficacy in the treatment of moderate to severe psoriasis. In this analysis, pooled responses from the Phase 3 ERASURE and FIXTURE trials were analyzed by body weight quartile.

Methods: Secukinumab 300 mg and 150 mg was evaluated vs. placebo in ERASURE (758 subjects) and vs. etanercept 50 mg and placebo in FIXTURE (1506 subjects). Secukinumab was administered at baseline, Weeks 1, 2 and 3, then every 4 weeks from Week 4 to 48. Co-primary endpoints were PASI 75 and IGA mod 2011 0/1 responses at Week 12 vs. placebo. Secondary endpoints included PASI 90 response at Week 12 vs. placebo. Randomization was stratified by body weight (<90 or ≥90 kg).

Results: Subjects were grouped by baseline weight quartile: 42–69.9 kg, 70–82.0 kg, 82.1–97 kg, and 97.1–219.1 kg. PASI 75, IGA mod 2011 0/1 and PASI 90 responses (non-responder imputation) were numerically lower with increasing weight at Week 12, Week 16 and Week 52. At Week 12, PASI 75 response with 300 mg secukinumab was 82.1% in the lowest weight quartile vs. 70.6% in the highest (72.1% vs. 58.9% with 150 mg). All efficacy outcomes favored 500 mg over 150 mg at Week 12, Week 16 and Week 52 across all weight quartiles. No new or unexpected safety signals were observed.

Conclusions: Secukinumab 500 mg demonstrated consistently greater benefit than the 150 mg dose across weight quartiles, even in the highest where responses trended slightly lower.

Familial frontal fibrosing alopecia: Treatment with dutasteride, minoxidil and artificial hair transplantation
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Background: In our clinic, FFA is now the most common form of cicatricial alopecia, mostly producing progressive recession of the frontotemporal hairline with partial or complete eyebrow loss. The optimal treatment of FFA is uncertain. The evidence remains subjective and unclear, making it difficult to determine whether slowing progression is a response to therapy or a natural stabilisation of the disease.

Case: A 46-year-old premenopausal woman presented with histologically confirmed FFA affecting the temples bilaterally on a background of rheumatoid arthritis treated with hydroxychloroquine 400 mg daily and methotrexate 20 mg weekly. Her mother suffered similar alopecia and localised scleroderma. Neither of her two sisters had hair loss. Serial intraleosal injections of triamcinolone did not limit progression of hair loss. Treatment with dutasteride 0.1 mg daily and minoxidil 1 mg daily stabilised hair loss and artificial fibre hair transplantation led to a satisfactory cosmetic outcome.

Discussion: This case report suggests that hydroxychloroquine and methotrexate have little role in preventing the onset and altering the progression of FFA. A combination
of oral dutasteride and minoxidil stabilised hair loss. Hair transplantation with artificial fibres is a promising treatment, circumventing inflammatory processes associated with autologous hair transplantation and providing a satisfactory cosmetic outcome.

Secukinumab exhibits low immunogenicity during 104 weeks of treatment in subjects with moderate to severe plaque psoriasis

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Introduction: Secukinumab is a fully human monoclonal antibody that selectively targets IL-17A for the treatment of psoriasis. Biologic drugs can induce anti-drug antibodies (ADA) that may affect pharmacokinetics, diminish response, or cause hypersensitivity. Here, in a 4-year extension of two phase 3 studies ERASURE and FIXTURE, we evaluated the immunogenicity of secukinumab at Week 104 of treatment.

Methods: Subjects completing either core study with at least a partial response (PASI ≥ 50) to secukinumab at Week 52 were eligible for inclusion. PASI 75 responders in each secukinumab dose group of the core studies were randomized 2:1 to continue the same doses of secukinumab (300 mg or 150 mg) or receive placebo (300 mg-PBO or 150 mg-PBO) every 4 weeks. Blood samples obtained at Week 52, Week 76 and Week 104 were assayed for treatment-emergent ADA (TE-ADA). Confirmed TE-ADA samples were analyzed for neutralizing potential.

Results: TE-ADA were detected in 6/1142 (0.55%) subjects tested; one in the 500 mg arm, three in the 150 mg arm, and two in the 150 mg-PBO arm. Two subjects, one each in the 500 mg and 150 mg-PBO treatment groups, tested positive for neutralizing antibodies at Week 76. Among the six subjects with TE-ADA, four later reverted to a seronegative state during therapy. TE-ADA, including in the 2 subjects with neutralizing antibodies, were not associated with loss of response or hypersensitivity reactions.

Conclusion: TE-ADA and neutralizing antibodies were reported rarely with secukinumab treatment out to 2 years, and were not associated with loss of secukinumab efficacy or other issues of clinical concern.

Secukinumab demonstrates sustained efficacy in moderate to severe plaque psoriasis across disease severity subgroups

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Introduction: Secukinumab targets interleukin-17A for the treatment of psoriasis. To explore the efficacy of secukinumab in subgroups with different levels of disease severity, we pooled and analyzed data from two phase 3 trials (FIXTURE and ERASURE).

Methods: In the 52-week, double-blind, placebo-controlled ERASURE study, subjects (N = 758) were randomized 1:1:1 to secukinumab sc 500 or 150 mg or placebo. FIXTURE (N = 1506) had a similar design with an additional treatment arm: etanercept sc 50 mg. For the present analysis, data were pooled at the individual subject level and stratified by baseline PASI: ≥ 20 or < 20.

Results: At Baseline, mean PASI in each arm ranged from 15.7 to 15.8 in the subgroup ≤ 20 (secukinumab 500 mg [n = 334], secukinumab 150 mg [562], etanercept [159], placebo [559]) and 50.0 to 50.7 in the subgroup > 20 (300 mg [n = 354], 150 mg [520], etanercept [160], placebo [518]). At Week 12 primary endpoint, mean PASI for secukinumab 500 mg, 150 mg, etanercept, and placebo was 2.1, 3.3, 6.0, and 15.0 (subgroup ≤ 20) and 4.0, 6.8, 10.0, and 26.5 (subgroup > 20). PASI reductions were maintained to Week 52 for secukinumab 500 mg, 150 mg and etanercept with mean PASI of 1.9, 3.5, and 4.4 in the subgroup ≤ 20 and 33, 5.8, and 5.7 in the subgroup > 20. Incidences and types of adverse events in each subgroup were consistent with those in the overall study populations.

Conclusions: Secukinumab treatment reduced mean PASI to similarly low levels regardless of baseline disease severity subgroup and maintained responses to 52 weeks.

Secukinumab is efficacious in the treatment of moderate to severe plaque psoriasis regardless of sex of subjects: Pooled analysis from four phase 3 studies

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Introduction: Secukinumab targets IL-17A for the treatment of moderate to severe plaque psoriasis. To date, the question of whether secukinumab is equally efficacious in male and female subgroups has not been addressed. To this end, we assessed the efficacy and safety of secukinumab in male and female subjects from a pool of four phase 3 studies (ERASURE, FIXTURE, FEATURE and
Methods: Subjects received secukinumab 500 mg or 150 mg via s.c. injection at Baseline, Week 1, 2, 3, and then every 4 weeks from Week 4 until Week 48. One study (FIXTURE) included etanercept 50 mg as the active comparator. PASI responses vs. placebo and etanercept were assessed at Week 12, 16 and 52 in the male and female subgroups. The safety of secukinumab in male and female subgroups was also evaluated.

Results: Overall, efficacy in both subgroups was very similar. At Week 12, 16 and 52, the percentage of subjects achieving PASI 75 and PASI 90 responses was slightly higher in female vs. male subjects. Mean baseline weight differences between the subgroups may contribute to these minor differences (89.2 vs. 79.4 kg for male/female). Efficacy vs. placebo was consistently proven across all time points for all measurements (p < 0.0001) irrespective of subgroup. Total treatment emergent adverse events were similar between male and female subjects and were consistent with the overall pooled population.

Conclusion: The results from this pooled analysis suggest that secukinumab is similarly efficacious in both male and female subjects.

Teledermatology satisfaction in children with epidermolysis bullosa
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Introduction: Epidermolysis Bullosa (EB) is a rare genodermatosis characterised by mechanical fragility of the skin leading to blistering and erosions following even minor trauma. Teledermatology has the potential to mitigate the burden of this disease by eliminating painful and distressing travel to specialist care and its associated costs. This is the first study to evaluate patient and clinician satisfaction with teledermatology in patients with EB.

Methods: A prospective observational study was conducted on patients currently utilising teledermatology services at the Royal Children’s Hospital, Melbourne. Data was collected between March 2015 and August 2015. All participants who underwent a teledermatology consultation completed the modified Royal Children’s Hospital Telehealth Questionnaire.

Results: All seven participants completed the Telehealth Satisfaction survey, conferring a 100% response rate. The mean age of participants was 11 years (range 1 – 15 yrs). All rated the standard of care from telehealth consultations as equal to that of face-to-face consultations. Eighty-five percent of participants reported decreasing travel time as the principle reason for preferring telehealth consultations. The mean travel distance saved per telehealth interaction was 258kms (range 39 – 680 km). The reported savings per telehealth consult per family was mean $551 and reported prevented loss of income per family mean $500. Overall, 100% of participants were satisfied with the telehealth service and would be willing to take part in further telehealth consultations.

Conclusion: Teledermatology in children with EB has significant potential, and its utilisation should be further encouraged. This study demonstrates teledermatology as a viable and effective model of care delivery in patients with EB.

A unique granulomatous skin rash leading to the diagnosis of a low grade infection in a total shoulder replacement performed several years prior
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We present the unusual case of a 75-year-old man who presented in January 2015 with a non-tender, non-pruritic, erythematous nummular lesion on the right shoulder of 2 months duration.

A 4 mm deep punch biopsy of the skin revealed diffuse interstitial infiltrate of inflammatory cells and a histological diagnosis of annular elastolytic granuloma was made. The patient was initially treated with topical steroids and steroid injections with a good response. Over a 2-year period, the lesion progressed in size and the patient started experiencing pain in the right shoulder. Ultrasound of the affected shoulder in February 2015 demonstrated a cystic lesion lying adjacent to the shoulder joint, and FNA biopsy of this showed an inflammatory process. Patch testing, syphilis, borreliosis and autoimmune screening were all negative.

The lesion reduced in size following antibiotics taken post-operatively for prostate surgery, further raising suspicion for an infectious cause. An open biopsy of the right shoulder tissue was performed in July 2015. Tissue culture of the biopsy grew *Propionibacterium acnes* in 5/5 samples. Microscopy revealed extensive granulation tissue and fibrosis with increased numbers of neutrophils present. These findings are consistent with a chronic low-grade infection, most likely caused by the patient’s shoulder reconstruction several years earlier. The patient will undergo shoulder revision under the care of the orthopaedic specialist by implanting an antibiotic loaded cement spacer.

It is well known that joint reconstructions can become infected with *Propionibacterium acnes*. However, this is a unique case where the skin manifestation led to the diagnosis.
Lung sarcoidosis and silicosis developing in a psoriasis patient treated with adalimumab
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We present the case of a 27-year-old man with widespread and severe plaque type psoriasis. Since age 18, his psoriasis progressively worsened and failed to exhibit any significant or lasting improvement to other treatments, including narrow band UVB phototherapy, oral acitretin and methotrexate.

In July 2012, the patient commenced treatment on adalimumab, a TNF-alpha blocker. His PASI score prior to commencement was 25. The patient’s psoriasis responded quickly and successfully to adalimumab. Following 12 months of treatment his PASI score was 0.

In January 2015, the patient presented to his GP with atypical pneumonia. He was followed up by a respiratory specialist and a lung biopsy was performed. A diagnosis of upper lobe pulmonary fibrosis, secondary to sarcoidosis and silicosis was made. The sarcoidosis is possibly induced by his adalimumab treatment. The silicosis has been exacerbated by his occupational exposure to silica.

The patient has commenced treatment with prednisolone and methotrexate for his interstitial lung disease. He continues to experience chronic dry cough and exertional dyspnoea. Lung function testing also demonstrates a moderate to severe restrictive lung deficit with a mild reduction in alveolar gas transfer.

His adalimumab was immediately ceased, causing his psoriasis to severely flare with a subsequent decline in his mood. His psoriasis has since been controlled successfully with ustekinumab.

This is a rare case of sarcoidosis secondary to TNF inhibitor use. Although TNF inhibitors are generally well-tolerated, other cases have been reported of their use associated with the development of sarcoidosis.

The efficacy of home based chemo-wraps of topical 5-fluorouracil (5-FU) for solar keratoses on the limbs: A case series
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A case series with twice weekly home chemo-wraps of topical 5-fluorouracil (5-FU) under occlusion for solar keratoses on the limbs is presented. The efficacy is 95% for patients without hypertrophic keratoses. The advantages of this regimen is the reduction of inflammation compared to standard regimens and the ability to have the treatment entirely home based rather than office based.

Secukinumab is effective in subjects with moderate to severe palmoplantar psoriasis: 16 week results from the GESTURE study
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Introduction: Palmoplantar psoriasis occurs in up to 40% of plaque psoriasis patients. Secukinumab, an anti-interleuken-17A, has demonstrated efficacy with acceptable safety in phase 3 trials in plaque psoriasis. This study evaluated the efficacy and safety of secukinumab in subjects with moderate to severe non-pustular palmoplantar psoriasis (palmoplantar Investigator’s Global Assessment (ppIGA) >3).

Methods: GESTURE is a double-blind, randomized, placebo-controlled, phase 5b study. Subjects (N = 205) were randomized 1:1:1 to receive either secukinumab 500 mg, secukinumab 150 mg or placebo subcutaneously for 76 weeks. Data were analysed using the Cochran-Mantel-Haenszel (CMH) test with Non-Responder Imputation (NRI) and a sensitivity analysis using Multiple Imputations (MI).
Results: The primary and secondary endpoints at Week 16 were met. ppGFA 0 or 1 response at Week 16 with both doses of secukinumab was superior to placebo (p < 0.001); NRI: 55.5%, 22.1%, 1.5%; MI: 59.4%, 25.1%, 1.5%, for secukinumab 500 mg, 150 mg and placebo, respectively. ppPASI reduction from Baseline at Week 16 was superior to placebo for both doses of secukinumab (p < 0.001); MI: -54.6%, -55.5%, -4.1%, for secukinumab 500 mg, 150 mg and placebo, respectively. The most common AEs reported across all treatment arms were headache, nasopharyngitis and upper respiratory tract infection, similar to other pivotal phase 3 studies of secukinumab in psoriasis.

Conclusions: Results from the GESTURE study demonstrate that secukinumab is efficacious in non-pustular palmoplantar psoriasis with an acceptable safety profile.

Secukinumab is effective in subjects with nail psoriasis: 16 week results from the TRANSFIGURE study
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Introduction: Nail psoriasis is associated with decreased finger mobility, pain and reduced quality of life. Secukinumab, an anti-interleukin (IL)-17A has demonstrated efficacy with acceptable safety in phase 3 trials in subjects with moderate to severe plaque psoriasis. This study evaluated the efficacy and safety of secukinumab in subjects with moderate to severe psoriasis with significant nail involvement (nail psoriasis severity index (NAPSI) ≥ 16 and number of fingernails involved ≥ 4).

Methods: TRANSFIGURE is a double-blind, randomized, placebo-controlled, phase 3b study. Subjects (N = 198) were randomized 1:1:1 to receive either secukinumab 500 mg, secukinumab 150 mg or placebo subcutaneously up to Week 76.

Results: The primary and secondary endpoints were met. NAPSI % change at Week 16 with both doses of secukinumab was superior to placebo (p < 0.0001); Mean NAPSI % change was -45.5%, -37.9%, -10.8%, for secukinumab 500 mg, 150 mg and placebo, respectively using LOCF, and -45.4%, -38.9% and -11.2%, respectively with multiple imputation. PASI 75 responses for secukinumab were superior to placebo (p < 0.0001; PASI 75: 87.1%, 77.0%, 5.1%, respectively for secukinumab 500 mg, 150 mg and placebo). PASI 90 responses were also significantly higher with secukinumab 500 mg (72.5%) and 150 mg (54.0%) than with placebo (1.7%) at Week 16. The most common AEs reported across all treatment arms were nasopharyngitis, headache and upper respiratory tract infections, similar to other phase 3 studies of secukinumab in psoriasis.

Conclusions: The efficacy of secukinumab in nail psoriasis in TRANSFIGURE is the highest yet reported from a prospective, placebo-controlled trial in this population.

A case series of the use of pulse itraconazole for simple onycholysis
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Onycholysis is the separation of the nail plate from the nail bed. Simple onycholysis refers to a condition where there is no underlying medical cause such as psoriasis or onychomycosis. It can be chronic and difficult to cure, with most treatment options aimed at minimising trauma to the affected nails. We performed a retrospective clinical audit to investigate the benefits of pulse itraconazole as a possible treatment. Of the cases identified we observed that over 50% showed benefit from pulse itraconazole treatment with no significant side effects. Further research is still needed, but in difficult to treat patients this could be considered a possible safe treatment option.

A review of dermatology mobile apps
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Medical apps for mobile devices have been an intense area of development over the past several years. They provide fast and convenient access to information. We investigate and review mobile apps that have a focus in the area of dermatology. These may be useful resources for dermatologists and trainees in their clinical practice.

Benign lymphangioendothelioma: A case report
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Benign lymphangioendothelioma (also known as acquired progressive lymphangioma) is a rare lymphatic vascular proliferation. We report the case of an 81-year-old lady who presented with a 5 month history of a large, fluctuant erythematous lesion on her right shoulder. Biopsies revealed dilated endothelial channels of monolayered endothelium with absence of atypia, mitotic activity and spindle cell proliferation. Immunohistochemical staining was CD 31, CD 54 positive; and D2–40 strongly positive confirming the diagnosis of benign lymphangioendothelioma. This is a rare but important condition to recognise...
as early diagnosis will likely lead to fewer complications with an excellent prognosis.

**Hypertriglyceridaemia, hyperglycaemia and diffuse eruptive xanthoma**

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Diffuse eruptive xanthoma is a cutaneous condition that typically erupts in crops of small, red-yellow papules and is often a sign of an underlying lipid disorder. We discuss a case of a 16-year-old boy who presented with a 2 week history of this condition which was confirmed through a biopsy showing xanthomas. Results from further investigations showed marked hypertriglyceridaemia and hyperglycaemia and he was referred to an Endocrinologist to treat these underlying conditions. Eruptive xanthomas represent a cutaneous manifestation of an underlying metabolic disturbance that needs prompt diagnosis and treatment to prevent further morbidity and mortality.

**Long-term skin tightening effects of a sharply tapered non-insulated microneedle radiofrequency applicator with novel fractionated pulse mode shown through three-dimensional volumetric assessment**

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**Background:** Non-insulated microneedle radiofrequency (NIMNRF) is a novel method that allows non-thermal penetration of the epidermis followed by radiofrequency (RF) coagulation at selected depths of the dermis that are surrounded by a zone of non-coagulative volumetric heating. The objective of this study was to investigate subjectively and objectively the efficacy of a single fractional NIMNRF treatment.

**Materials and methods:** Thirty Japanese patients underwent full face skin tightening using a sharply tapered NIMNRF applicator with a novel fractionated pulse mode. The system platform (1MHZ) incorporated six independent phase controlled RF generators coupled to RF microneedles that induced skin remodeling via controlled dermal coagulation. Topical anesthetic cream was applied before the treatment. Three-dimensional (5-D) volumetric assessments were performed up to 12 months after treatment.

**Results:** During the study patients showed significant skin tightening on the lower two-thirds of the face. Objective assessments with superimposed 5-D color images showed significant long-lasting volumetric reduction after the treatment. Most of the patients were satisfied with the treatment results. Complications included a slight burning sensation and mild erythema which were minor and transitory. Side effects such as post-inflammatory hyperpigmentation, epidermal burns, and scar formation were not observed.

**Conclusions:** The advantages of this NIMNRF treatment for skin tightening are its long-lasting high efficacy as shown through 3-D volumetric assessments. Moreover, NIMNRF produced minimal complications and downtime as well as few side effects. This non-invasive novel fractional NIMNRF approach provides safe and long-lasting effects of skin tightening.

**A case of rapidly progressing angioedema with eosinophilia requiring treatment with high dose corticosteroids**

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Episodic angioedema with eosinophilia, or Gleich’s syndrome, is characterised by recurrent episodes of angioedema, peripheral eosinophilia, fever, weight gain and elevated serum immunoglobulin M. The syndrome is benign and usually self-limiting. A non-episodic variant, with similar features of lesser severity, has also been described. There has been one case reported in the literature of angioedema with eosinophilia following an infection with Mycoplasma pneumoniae. We report a case of rapidly progressing angioedema with eosinophilia, associated with a polymorphic eruption with erythema multiforme-like features, polyarthitis and myalgia requiring treatment with high dose corticosteroids. The patient had features that resembled both the episodic and non-episodic variant of angioedema with eosinophilia. A potential trigger in this case is Mycoplasma pneumoniae.

**A safe recapping technique to avoid needle-stick injuries during dermatological surgery**

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In Australia the rate of reported needle stick injuries is 1 in 5 occupied beds per year which equates to an annual sharps related injuries incidence of around 47,000. Needle stick injuries are an important and common occupational injury amongst healthcare workers. There are more than 20 blood-borne pathogens that can be transmitted from contaminated needles or sharps; these include hepatitis B (HBV), hepatitis C (HCV), and human immunodeficiency virus (HIV). It is widely recognised that needle-stick injuries are a source of exposure to blood-borne pathogens for workers in healthcare occupations. In fact, worldwide more than a hundred healthcare workers have contracted HIV from work related needle stick injuries and many thousands have contracted HBV or HCV. Due to the recognised risk of needle stick injuries, safeguards have been put in place in an attempt to lessen the risk of injury. This poster demonstrates a novel way of safely recapping a needle using the holes of a surgical tray. Raising awareness, safeguard interventions and educational training programs are effective in reducing the risk of acquiring needle-stick injuries.
An unusual presentation of systemic amyloidosis presenting with localised mucocutaneous lesions
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A 79-year-old Chinese lady presented with a 4-month history of recurrent blood-filled blisters on the oral mucosa with skin fragility on the perioral region. The blisters were not painful and resolved spontaneously without scarring. She did not have any other skin lesions. Six weeks later, she was subsequently admitted for lower back pain. Investigations revealed mild normocytic normochromic anaemia and significantly elevated serum creatinine. Serum electrophoresis showed a monoclonal band in the gamma region with decreased kappa/lambda ratio. Bone marrow aspirate confirmed multiple myeloma. Skin biopsy of the cutaneous lesion showed presence of amyloid. She deteriorated rapidly during the admission despite treatment for her myeloma. Cutaneous amyloidosis typically presents with confluent lichenoid papules or nodules on the eyelids or periorbital purpura. In some cases, patient may also have macroGLOSSIA or thickening of the skin around the perioral region. We present an unusual case of systemic amyloidosis secondary to myeloma which presented with localized mucocutaneous lesions on the perioral region.

Attitudes towards sun, tanning and skin cancer prevention amongst Australian adults undergoing skin checks
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Background: Australia has the highest incidence of non-melanoma skin cancer and melanoma worldwide. Both are strongly linked to ultraviolet radiation, with cumulative, intermittent sun exposure and sunburn playing variable roles. Familiar public health campaigns include “Slip! Slop! Slap!” and “SunSmart”, but individualised advice from dermatologists is important for primary and secondary skin cancer prevention. We aim to assess barriers to skin cancer prevention.

Methods: Retrospective analysis of notes for individuals undergoing a skin check by the Skin and Cancer Foundation Australia in 2015.

Results: 537 individuals underwent a skin check. Most reported sunscreen use for sunburn prevention (71%); 44% for skin cancer prevention. The most frequent reason for sunscreen omission was application taking too long (27%). Reasons for sunscreen omission differed by gender, more men cited application time (p = 0.0002) while women more frequently cited its feel and appearance (p = 0.001). Individuals with a history of skin cancer were more likely to cite skin cancer prevention as the primary reason for sunscreen use (p = 0.04). Those with a family history of skin cancer more frequently correctly reported the commonest type of skin cancer (p < 0.0001). 62% felt tanned skin was more beautiful than untanned skin.

Conclusion: Our study demonstrates there are multiple barriers to “SunSmart” behaviour, which differ by gender. Many Australians still perceive tanning as beneficial. Exposure to people with skin cancer increases knowledge about skin cancer, but does not appear to change attitudes and behaviours.

Reference

Drug reaction with eosinophilia and systemic symptoms (DRESS) in metastatic basal cell carcinoma treated with vismodegib
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We report the case of a 68-year-old gentleman with metastatic basal cell carcinoma (BCC) presenting with symptoms and signs consistent with a drug reaction with eosinophilia and systemic symptoms (DRESS).

Having been treated with multiple surgical interventions for a recurrent infiltrative BCC of the left temple, he developed radiologically measurable disease of the left parotid and upper neck, confirmed as BCC histologically. As this was considered unresectable, the orally available hedgehog inhibitor vismodegib was started. 54 days after beginning treatment, he presented with a widespread maculopapular exanthem associated with raised inflammatory markers and an elevated γGT. Subsequently dyspnoea, fever and clinically discernible lymphadenopathy developed. Core biopsy from axillary and inguinal nodes demonstrated no evidence of BCC, but a heavy eosinophil-predominant inflammatory infiltrate. Blood testing demonstrated eosinophilia (absolute eosinophil count 3.0 x10⁹/L).

With a diagnosis of DRESS, vismodegib was withdrawn and he was treated with high dose intravenous methylprednisolone, with rapid improvement of the symptoms and biochemical abnormalities.

We discuss the diagnosis of DRESS, a heterogeneous group of severe drug reactions associated with haematological and visceral involvement. A delay between treatment initiation and symptom onset is characteristic of DRESS, though typically the latency period is 2-6 weeks. This is
the second known case of DRESS resulting from vismodegib treatment worldwide. DRESS is a life-threatening condition and as such its probable association with vismodegib treatment is important to observe.

References


Self-directed tablet education session improves safety knowledge amongst patients undergoing phototherapy C. Thomas1,2, A. Kennedy1, S. Choi-Lombardi3, M. Sgarioto1, P. Fernandez-Penas1,2

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Background: Narrowband UVB radiation (phototherapy) is frequently used in the management of common dermatological conditions including eczema, psoriasis and vitiligo. For effective and safe treatment, patients must understand the procedures, responsibilities and potential risks involved. Traditionally, a nurse-led education session takes place prior to patients’ first treatment at our practice. Anecdotal evidence suggested the content of sessions varied by educator and over time, with a potential impact on patient knowledge and compliance. We undertook a service improvement project to assess methods of delivering important safety information to patients. We developed a standardised tablet-based education session and compared this delivery system with the nurse-led education.

Methods: 29 phototherapy patients attending the Skin and Cancer Foundation Australia between June and August 2015 underwent the traditional nurse-led education session and then completed a 17 point questionnaire covering knowledge of safety, risk factors and responsibilities when undergoing phototherapy. Subsequently, 50 patients undertook the tablet-based session prior to answering the same questionnaire. Data was analysed using JMP statistical software.

Results: Mean score in the tablet group was higher than in the nurse-led group (p = 0.0005). The time to deliver the education session was shorter in the tablet group (p = 0.05). Patient acceptability did not differ between groups

Conclusion: Though traditional nurse-led education sessions gives rise to high levels of knowledge about phototherapy safety and responsibilities, the tablet education session gave rise to superior knowledge. This modality also saved time compared with the traditional method and acceptability was high amongst patients and nurses.

Case discussion: Dermatophyte infection (tinea faciei) on the face of an 11-year-old boy

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Dermatophytosis (tinea, or ringworm) is a common infection among paediatric populations. Depending on the sites of involvement and compliance with treatment, management of these common infections is usually successful.

In this case, an 11-year-old boy sustained an extensive zoophilic dermatophyte infection over his face, after recently acquiring a new pet dog. This case is of clinical interest, because treatment with combined corticosteroid and clotrimazole was initiated by the GP, and proved unsuccessful at 9 days’ post onset. The clinical photograph shows an extensive dermatophyte infection, which kept this boy home from school while GP management was failing.

Whilst differential diagnoses were considered, my poster points out the importance of recognising and correctly treating tinea infections:

- Topical corticosteroids can contribute to treatment failure in tinea infections, (particularly if infections are due to Microsporum species) [1–5]. Combined therapy may even confuse diagnosis as the eruption may present differently due to the action of corticosteroids (tinea incognito).
- It is prudent to continue treatment for a period of time beyond symptom resolution, ensuring all fungal spores have been eradicated.
- Using combination product may pose unnecessary risk to patients including failure of treatment, confusion of diagnosis, or skin atrophy due to the action of corticosteroids. Combination products are also more expensive than simple antifungals: non-dermatologists were far more likely than dermatologists to prescribe combination products (54 vs. just 4%), contributing to excess medical expenditure in the vicinity of $10–25 million [4].

The sequelae of metallosis resulting in skin pigmentation and tattooing: A full literature review

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With advancing technologies in orthopaedics, and increasing demands of the population for orthopaedic interventions, younger patients are now receiving joint replacements. One of the potential risks of joint replacement is hardware failure, and metallic debris migrating into local tissue (termed metallosis), from prosthetic wear.

The phenomenon was most commonly associated with failed metal on metal hip prostheses, and was characterised by heavy staining of surrounding soft tissue, metallic synovitis, joint effusion, and gradual loosening of the
prosthesis. The release of metal ions has further been known to lead to systemic upsets including neurological deficit (declining vision, hearing or cognition; headaches), cardiac failure, and hypothyroidism. Importantly, metallic debris inside the body can also lead to superficial skin manifestations.

Metallosis related skin tattooing is of increasing consideration, as increasingly younger patients are seeking major orthopaedic interventions. Whilst the structural components of a failed joint replacement can be revised (improving patients’ pain and functioning), any skin tattooing secondary to metallosis presents the treating dermatologist with a clinical challenge.

Our aim is to review the published literature on metallosis, including the pathophysiology. Then using the available literature on the treatments being implemented for other types of metallic tattooing, we hope to offer a jumping point for dermatological investigation or trial of treatment.

This paper should also serve to remind orthopaedic surgeons that whilst the primary complaint is likely to be pain related to joint failure, with increasing patient concern regarding cosmesis, a multi-specialty approach including referral to a dermatologist is valuable.

A 62-year-old man with papular granulomatous dermatitis of uncertain aetiology mimicking leprosy

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We present the case of a 62-year-old man of Burmese descent who presented with a 5 month history of multiple skin coloured papules on his limbs and trunk, which were itchy at times. There were no hypopigmented patches, although there was a thickened ulnar nerve. The only significant medical history was a *Burkholderia pseudomallei* infection of the prostate 2 years prior, which had been treated successfully.

Initial skin biopsies showed superficial perivascular and periadnexal granulomatous dermatitis. Stains for acid fast bacilli and *M.leprae* were negative. Extensive investigation did not show any definite evidence of sarcoidosis, tuberculosis or any other cause of granulomatous dermatitis. However, as the granulomas were suggestive of tuberculous leprosy he was commenced on treatment, with no improvement in his condition. Subsequent skin biopsies also failed to show any evidence of an infective agent, and the working diagnosis was changed to a probable hypersensitivity reaction to *Burkholderia pseudomallei*. However electron microscopy of tissue specimens did not show any definite evidence of *Burkholderia* and whole body imaging did not show any foci of infection.

Based on the working diagnosis of immune mediated cutaneous granulomas he was commenced on oral prednisolone 25 mg daily, with regression of the lesions. Oral azathioprine and UV phototherapy have been introduced, with successful slow weaning of the oral prednisolone.

This case is presented to highlight the difficulty in identifying the cause of granulomas in some cases of granulomatous dermatitis. We propose an algorithm for investigating cases of cutaneous granulomas of uncertain aetiology.

Azacitidine induced Sweet’s syndrome – Two unusual clinical presentations

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Drug induced Sweet’s Syndrome refers to the development of painful erythematous plaques and nodules, a neutrophilic dermal infiltrate without evidence of vasculitis, fever, temporal association with drug ingestion or recurrence after rechallenge and temporally related resolution after drug withdrawal or steroid treatment. It is a rare and morphologically variable entity which accounts for approximately 12% of cases of Sweet’s Syndrome. We present two similar and very unusual clinical presentations of localised drug-induced Sweet’s Syndrome following subcutaneous azacitidine injection in two patients - one with myelodysplastic syndrome and one with acute erythroid leukaemia. Clinically the lesions were dusky circular purpuric plaques composed of numerous concentric rings, suggesting Sweet’s Syndrome lesions with subcutaneous red cell extravasation or vascular dilation. Histopathology in both cases demonstrated a dense neutrophilic infiltrate consistent with Sweet’s Syndrome. Bacterial and fungal cultures were negative. Both patients demonstrated excellent response to oral prednisolone and their condition rapidly resolved leaving only residual bruising within 1 week. There are a handful of reported cases in the literature of azacitidine induced Sweet’s Syndrome. Unless a careful history is taken, a drug induced aetiology may not be recognised in these patients as haematological malignancy is also an independent cause for Sweet’s. The cases we present are of particular interest given their unique morphology.

Mosaic poikilodermia heralding rothmund-thomson syndrome – Insights into genetics determinants of premature ageing and skin cancer

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Rothmund-Thomson syndrome is a rare autosomal recessive condition that affects a number of organs including the skin with an increased susceptibility for cutaneous,
haematological and solid organ malignancies including osteosarcoma. We present a case of a 58-year-old man who had an unusual mosaic pattern of poikiloderma that was only apparent in adulthood on sun-exposed body sites. Examination of skin, dentition and other systems were normal. Only areas of poikiloderma have given rise to a number of non-melanoma skin cancers. There were no clinical evidence to suggest his siblings or children are affected. He was born to phenotypically normal parents although father had extensive sun damage and history of cutaneous malignancy. Whole exome sequencing demonstrated a missense mutation in the RECQL4 gene (C>T p.V799M). This was found to be heterozygous in both skin and salivary sample. The sun damaged skin showed about twice the number of somatic mutations as the undamaged skin. These findings may explain the mosaic pattern of poikilodermatous sun-damaged skin. Incidentally, he also carries a rare variant of the Filaggrin gene in the heterozygous state, R501X mutation, resulting in a truncated protein. Although he has completed his family, genetic counselling and further genetic analysis would be relevant in this case to determine risk to his children and predisposition to malignancy. Radiography should be performed to screen for skeletal abnormalities, which have been shown to correlate with RECQL4 mutation status and risk of osteosarcoma.

Dermatology in Australian general practice: What are the common presentations?

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Background: Dermatological presentations to general practitioners (GPs) are common, comprising approximately 14–16% of all presentations in Australia.1 When compared to their primary care counterparts in other parts of the world, Australian GPs consult and treat more patients with dermatological complaints.2–5 Highlighting frequently made diagnoses may guide education and training in the area of dermatology.

Objective: The aim is to reinforce that skin diagnoses made by Australian GPs comprise a large proportion of all diagnoses. The secondary objective is to present a breakdown of the most common skin diagnoses in an Australian cohort study. By doing this, we hope to highlight the need for further training for medical students and GP trainees in the field of dermatology.

Methods: Patients were recruited by Australian National University medical students in order to build the Clinical Audit Project database. Results were stratified to retrospectively evaluate GP skin presentations, and were compared to national figures.

Results: In this audit, 15.7% of 4218 patients that presented to GPs were diagnosed with one or more skin conditions. Skin infections, cancers, and solar damage constituted the most common skin diagnoses – 18.0%, 12.8%, and 8.0% respectively.

Discussion: Skin disease is a large part of Australian general practice, and teaching in the field of dermatology should have a particular focus on skin cancers, infections, and solar damage.

References


Unilateral hidradenitis suppurativa triggered by occupational exposure: A case report

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Hidradenitis Suppurativa (HS) is a chronic inflammatory debilitating condition with poorly understood aetiology. It is an entity that can be characterised by chronic abscesses, papules, nodules, scars and sinus tract formation affecting areas such as inguinal, axillary, and inframammary regions.1,2 Friction, heat, and sweat are known to exacerbate HS.3 We report a case of a 54 year old overweight cement miller who developed unilateral HS in one axilla due to prolonged repetitive motion while handling an air pressure hose at work. This case is unique in that it highlights occupational exposure as a trigger of HS, and the possibility of unilateral presentation of the disease.

References

The education of practicing pharmacists in dermatology delivered via an online teaching course
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Pharmacists possess a pivotal role in the primary care of dermatological conditions within the community, often being the first point of contact for patients. Pharmacists are in a position to treat minor skin conditions with over the counter treatments and are essential in the counseling of dispensed topical and oral dermatological medications prescribed by general practitioners and dermatologists.

The role of the pharmacist is often underutilized and the quality of advice offered varies significantly based on the knowledge and experience of the individual. It is recognized that this may have a significant impact upon the management of common chronic dermatological conditions such as atopic dermatitis and psoriasis. For instance “topical corticosteroid phobia” amongst patients and caregivers has been a concept well explored in the literature leading to poor patient outcomes.1,2 Pharmacists play a key role in either precipitating such fears or can correctly educate patients on correct application and realistic expected adverse effects.

In order to address this and ensure a consistency of standard knowledge, Monash University has developed a postgraduate teaching course (PGP5015) in dermatology for registered practicing pharmacists. This is a novel course unique in the manner that it targets the key dermatological concepts relevant to the role of pharmacists. There is a focus on basic morphology, formulations, inflammatory and infective skin conditions, autoimmune conditions and non melanoma and melanoma skin cancer. The content is delivered online in an interactive manner facilitated by experienced educators with case study based end of term assessments.

PD-1 inhibitors induced bullous lichen planus: A rare presentation and report of three cases
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The introduction of targeted therapies such as anti-PD-1 monoclonal antibodies has changed the scenario of treatment in cancer. Apart from their impressive efficacy profiles, they are better tolerated than the conventional chemotherapeutic agents. Various immunological adverse events have been reported: Gastrointestinal (diarrhea, colitis), Endocrine(hypothyroidism, hyperthyroidism, hypophysitis, adrenal insufficiency), Hepatic(elevated ALT and AST), Ocular(conjunctivitis, scleritis, uveitis, graves’ opthalmopathy), Neurologic(myopathy, guillain-barré syndrome, myasthenia gravis) and Dermatologic(pruritus, vitiligo, bullous pemphigoid). We have had the opportunity to diagnose and treat 3 patients that presented with bullous lichenoid reactions. These patients showed a range of clinical presentation (macules, plaques and lichenoid papules) that evolved into erosions. The lesions were predominant-lulpalmoplantar in our first case and exanthemetic in the other 2 cases. All the biopsies showed lichenoid changes with negative IF. All patients responded well to treatment with no progression in their systemic disease. Bullous lichen planus has to be included in the differential diagnosis of lesions in patients on anti-PD1 therapies.

A review of the current sunscreen products in Australia
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Melanoma (MM) and Non MelanomaSkin cancer (NMSC) are leading causes of morbidity and mortality in Australia, and of significant cost to the community.1,2 Public health campaigns to reduce skin cancer include advice on the use of adequate sun screen preparations. The Australian market has about 911 sunscreen products, each with different formulation and ingredients, making it difficult for consumers and health care professionals to determine which products to use.2

We list and discuss the specific ingredients found in sunscreen formulations available in Australia, the mode and range of protection, photostability, solubility, side effects such as irritant and allergic contact dermatitis, vitamin D deficiency and the safety of nanoparticles. Vehicle effects on compliance and efficacy are also discussed.

We also explore the methods used by the Therapeutic Goods Administration (TGA) to determine the ratings and efficacy of each sunscreen, in particular, Sun Protection Factor (SPF), UVA Protection Factor (UVAPF) and water resistance.

References

The recommendations of monitoring and adverse effect profile of oral azathioprine immunosuppression in paediatric dermatology
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Background: Azathioprine is widely used in paediatric dermatology clinics. Routine blood tests are performed to
minimise drug-related adverse events. However, the frequency of testing for monitoring may lead to significantly fearful patient experiences.

Objectives: We aim to review haematological abnormalities and clinical side effects in a paediatric clinic population commencing azathioprine for dermatological conditions, where haematological profiles are monitored less frequently compared with current Australian Medicines Handbook and Monthly Index of Medical Specialties (MIMS) recommendations.

Methods: A retrospective chart review was performed for all patients commencing azathioprine at a single clinic site from 2001 to 2015. Blood tests were performed at baseline, week 4, week 8, and 5-monthly. The outcome variables were abnormal blood tests, side effects, and indications for ceasing azathioprine. Associations were analysed for groups with and without medication side effects, using Cox proportional hazard models.

Results: 95 patients (mean age of 10.7 years) commenced azathioprine. No baseline characteristics were associated with the development of clinical side effects. Abnormal blood test results were not associated with clinical side effects (p = 0.988). 2 of 95 (2.1%) patients ceased azathioprine due to abnormal blood test, 6 of 95 (6.3%) due to clinical side effects, and 1 of 95 (1.1%) due to both abnormal blood test and clinical side effects. No adverse events occurred, with full normalization after cessation and no residual clinical effects.

Conclusion: Less frequent monitoring did not result in significant adverse events over a 15-year period. We suggest that haematological monitoring during azathioprine use can be safely reduced from current recommendations.

A review of the role of magnetic resonance imaging in asymptomatic infants with at-risk congenital melanocytic nevi

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Introduction: The spectrum of CNS associations observed in infants with multiple, large or giant congenital melanocytic naevi (CMN) has broadened to include benign non-melanocytic CNS tumours, structural malformations, spinal involvement and intra-parenchymal melanosis in addition to neurocutaneous melanosis (NCM) and melanoma. Early magnetic resonance imaging (MRI) of the neuro-axis has been recommended on the basis that diagnosis of presymptomatic CNS involvement, may allow for early beneficial intervention. This poster examines the role and limitations of MRI screening in determining prognosis and management of neurologically asymptomatic infants with multiple, large or giant CMN for CNS abnormalities.

Method: A search of MEDLINE, EMBASE and the Cochrane Library was conducted with key search terms. Articles from the last 10 years were analysed. Further articles from earlier years were identified as relevant during the primary analysis.

Results: The absence of CNS abnormalities on MRI in asymptomatic infants with multiple, large or giant CMN does not exclude their presence, and identifying them on neuroimaging fails to predict their clinical course. Ongoing clinical monitoring is required despite a negative scan. Currently, there is no conclusive evidence supporting benefits of presymptomatic radiological intervention for neurological outcomes in this population. Education about the early recognition of seizures, symptoms of raised intracranial pressure and neurological red-flags, facilitated thorough referral to a paediatric neurologist in addition to clinical monitoring, is integral to optimise neurodevelopmental outcomes.

Debilitating late outcomes of toxic epidermal necrolysis (TEN): Presentation of 2 cases

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Despite improvement in the survival rates of toxic epidermal necrolysis (TEN), there’s a scarcity of literature regarding its late outcomes. We present two patients who suffered considerable, both medical and psychological long-term complications from TEN.

Case 1 is a Caucasian female who suffered from carbamazepine-induced TEN at 55 years of age in 1988, associated with corneal epithelial loss. Her six-month hospital admission elsewhere was complicated by atrial fibrillation, sepsis, anaemia, pulmonary oedema, osteomyelitis secondary to a cannula site infection, and antibiotic-associated diarrhoea. Following hospital admission, she suffered from chronic infirmary secondary to complete blindness, including depression, endocrine dysfunction, hypercholesterolaemia, chronic renal impairment, chronic heart disease and eventually cardiac failure resulting in her premature death at 74 years of age.

Case 2 is a 74 years old female who suffered from Epstein-Barr virus (EBV)/amoxicillin-induced TEN at 70 years of age, treated with IVIG and oral corticosteroids. She developed ocular complications early, associated with corneal epithelial loss. Her hospital admission was complicated by a PICC line infection and antibiotic-associated diarrhoea. Following hospital admission, she suffered from various ocular complications including chronic photosensitivity with limited vision, recurrent eye infections and a descemetomecele. Her Dermatology Life Quality Index 5 years after her initial TEN episode was still impaired at 11/50, as her ocular complications prevented her from completing basic housework and leisure activities.

Our cases highlight the need for continuous multidisciplinary follow-up care of TEN patients, well beyond their initial hospital admission and the severe medical problems which may ensue.
Validation of a novel grey-scale and atopic dermatitis scores for skin of colour patients – Results from a multi-center study

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Introduction: Atopic dermatitis (AD) scores appeared unreliable in dark skinned patients in a previous study performed using photographs.1 We sought to improve the previous study by performing it in real-life patients and to investigate the reliability of a novel grey-scale for skin of colour patients.

Method: Twenty-four AD patients each attended a one-day scoring exercises based in either Sydney or Melbourne. Each patient was scored by 5 dermatology doctors using the Eczema Area Severity Index (EASI)2, objective-Scoring Atopic Dermatitis score (oSCORAD), Physician Global Assessment (PGA) and a grey-scale composed of four shades of grey. Patients self-completed the Dermatology Life Quality Index (DLQI) and the Patient-Oriented Eczema Measure (POEM). A Mexameter was used for their baseline melanin indices. Twelve randomly-chosen patients were re-scored for intra-rater reliability. Reliability was analysed using the intra-class correlation coefficient (ICC). The contribution of score components to their variability was analysed with the co-efficient of variance (CV).

Results: Preliminary data from the first twelve patients seen in Sydney (6 with melanin index ≥200 indicating Asian/African skin types) showed that all scores had worse inter-rater reliability in dark patients. EASI had an ICC of 0.85 in light patients vs. 0.79 in dark patients, oSCORAD 0.84 in light patients vs. 0.78 in dark patients, and PGA 0.86 in light patients vs. 0.67 in dark patients. Intra-rater ICCs were excellent in all skin types. Full results including all 24 patients will be presented, showing contribution of score components to variability, correlation with QoL scores, and validation of the grey-scale.

References


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