sies from 15 patients on anti-PD-1 agents and 9 biopsies from 7 patients on anti-PD-1 plus ipilimumab therapy. Clinically, all except two patients presented with discrete, violaceous exanthematous papules to plaques. The lichenoid inflammation in the majority (18 of 29 biopsies) was florid although the rest of histology was quite heterogeneous. Nevertheless, there was frequent involvement of the superficial follicular epithelium and acrosyringium, as well as a propensity to blister which occurred in about 20% of the biopsies. Occasional patients had disease closely resembling lichen planus, although all of these biopsies had some atypical features for lichen planus such as parakeratosis. Dermal eosinophils were common particularly in those with mild inflammation. The lichenoid reactions were responsive to topical steroid or oral systemic treatment in general and the anti-PD-1 agent had to be ceased in only one patient.

# 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 melanomaspecific 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 1.59-3.11). 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 = 1.13, 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 suicide<sup>1</sup>. Current literature on this issue remains conflicted and lacks well designed blinded randomized controlled trials<sup>2</sup>.

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 73 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.

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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

 Necrotizing Lymphocytic Folliculitis: The early lesions of Acne Necrotica (varioliformis) Kossard S; Collins A; McCrossin I, J Am Acad Dermtol May; Vol 16 (5 pt 1): 1987

# 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 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.

## **Plenary Session 1**

### 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. SSA/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 inflammation, development of painful or painless oral ulcers 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.