

## Reports on Scientific Meetings

### The 72th Annual Meeting of American Academy of Dermatology

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Date: 21-25 March 2014  
Venue: Convention Center, Denver, Colorado, USA  
Organiser: American Academy of Dermatology

#### **Role of hormonal therapy in acne**

Speaker: Dr. Bethanee J. Schlosser  
Department of Dermatology, Northwestern University, Chicago, USA

Indications to consider hormonal therapy in acne patients include hyperandrogenaemia, late-onset acne, prominence of acne on lower part of the face and neck, premenstrual flare, resistance to conventional therapies and alternative treatment to isotretinoin. There are numerous hormonal therapies available. The strength of recommendation is higher for oral contraceptive pills (OCPs) than spironolactone. FDA indications for OCPs include moderate inflammatory acne, desire for contraception, plans to take contraceptives for at least six months and failure to respond to topical medications.

A meta-analysis of combination OCPs in treating acne showed that it outperformed placebo and there were few differences noted between combination OCPs types. Absolute contraindications for combination OCPs include

deep vein thrombosis, pulmonary embolism, cerebrovascular accident, coronary artery disease, congenital hyperlipidaemia, breast malignancy, liver tumour and pregnancy while the relative contraindications include migraine, hypertension, diabetes mellitus, gallbladder disease and breastfeeding. Pelvic examination and Pap smear are no longer required for the initiation of hormonal contraception in most women.

Spironolactone is an aldosterone antagonist and a diuretic. It has competitive inhibition of the androgen receptor. At high doses, it decreases the androgen synthesis via P450 inhibition. Spironolactone can reduce sebum excretion and is dose-dependent. It has variable effect on serum androgen levels. The usual recommended dose is 50-200 mg daily. Contraindications include renal insufficiency, hyperkalaemia, pregnancy (category C) and oestrogen-dependent malignancy.

#### **Learning points:**

Hormonal therapy has an important role in female acne patients. There are numerous options available. As a clinician, we need to be aware of the contraindications and regular monitoring is needed for some agents like spironolactone.

## Complications of decorative tattoos

Speaker: Dr. Michi Shinohara  
Clinical Assistant Professor, Division of Dermatology,  
University of Washington, USA

Complications of tattoos include inflammatory reaction, infection and neoplasm. Inflammatory tattoo reactions are numerous including granulomatous, lichenoid, pseudoepitheliomatous, pseudolymphomatous and eczematous changes. Sarcoidal granulomatous disease is an interesting topic in tattoo patients. Sarcoidosis can occur decades later in the tattoo regions and is associated with interferon use (1 in 400). Searching for other sites involved is important as there is up to 70 percent involvement in the lung and there is less than 5% occurrence in other organs. Biopsy of suspicious tattoo tissue is needed to make the diagnosis of sarcoidosis. Lichenoid tattoo reactions are also frequently reported. It can occur weeks to years after tattooing. It is more common with red pigment than other pigments. Pseudolymphomatous tattoo is a form of cutaneous lymphoid hyperplasia. The lesion can be composed of mainly B cell, T cell or mixed cell types. True lymphomas are rare. Anaphylaxis after tattooing has been reported. We need to pay particular attention to patients with a strong history of urticaria or other allergy history. In general, treatment of inflammatory tattoo reactions include topical and intralesional steroids. Hydroxychloroquine is used for sarcoidal reaction.

Neoplasms arising inside tattoo tissue like squamous cell carcinoma, keratoacanthoma and melanoma have been reported. A high index of suspicion is needed to recognise the condition early. Infections due to tattooing include transmission of hepatitis virus and human immunodeficiency virus. Localised reactions include acute pyogenic reaction, tuberculosis infection, leprosy and viral infections like human papillomavirus infections and molluscum virus infections have been reported.

### Learning points:

There are numerous types of tattoo complications like infection, inflammation and neoplasm. A high index of suspicion is needed to diagnose the disease. Biopsy of the tattoo lesion is sometimes needed to make the correct diagnosis. Different types of reactions are likely to evolve in view of changing trends in tattooing technique and the inks used.

## Male genital dermatology

Speaker: Dr. Anthony Hall  
School of Medicine, Deakin University, Australia,  
Male Genital Clinic, Skin & Cancer Foundation Inc.,  
Melbourne, Australia

Genital disease is mostly non-infectious. Patients with genital problems are often anxious, so listening is of paramount importance in establishing a rapport with them.

The commonest male genital disorders include irritant dermatitis, lichen sclerosus and psoriasis. Psoriasis is often stated to be the commonest inflammatory disease of male genitalia. Typical scales may be absent especially in uncircumcised patients and the natal cleft is commonly involved. For solitary papule or plaque on the glans, we need to be aware of the differential diagnosis of squamous cell carcinoma *in situ*. The quality of life and sexual health is diminished in many patients with genital psoriasis. The first-line treatment includes weak topical corticosteroids. Second-line treatments include vitamin D preparations e.g. calcipotriol as monotherapy or combined with topical steroid which can decrease the irritation by vitamin D agents. Third-line options include calcineurin inhibitors (e.g. pimecrolimus and tacrolimus) but we need to be aware of the potential irritation and stinging side effects. For treatment-resistant plaque, biopsy of the lesion may be needed to exclude malignancies like Bowen's disease and extramammary Paget's disease.

Penile lichen sclerosus is another common genital dermatological problem. Patients present with asymptomatic whitening of the glans and foreskin. Patients may have difficulty in retracting the foreskin and even with erections. In severe cases, they have voiding difficulty leading to urinary retention and rarely renal failure. There is an interesting association between male genital lichen sclerosus and squamous cell carcinoma (SCC) of the penis. The risk of male patients with lichen sclerosus to develop penile SCC is around 4-8% while that in patients with penile squamous cell carcinoma having histologic evidence of lichen sclerosus is around 32-50%.

### **Learning points:**

Treating patients with genital skin problems is not difficult most of the time. Common dermatoses often have different presentations in the genital region. We need to be aware that many male patients with genital disease have underlying fear of getting sexually transmitted infection or cancer. It is essential to perform skin biopsy if malignancy cannot be confidently excluded.

## **Lessons learned from a paediatric rheum-derm clinic**

Speaker: Dr. Heather Brandling-Bennett  
Division of Dermatology, Department of Pediatrics,  
Seattle Children's Hospital, University of Washington  
School of Medicine, USA

There are different subtypes of morphea like the linear form, circumscribed, superficial (limited to epidermis and dermis), deep, generalised (defined as 4 or more lesions, plaques >3 cm in diameter) and mixed type. Paediatric morphea tends to have a longer disease duration. It can be progressive with over 25% recurrence rate months to years after

treatment. Up to 20-40% have extracutaneous manifestations. Systemic workup depends on the symptoms and signs of patients. Ophthalmological examination, brain MRI with contrast, barium swallowing test, pulmonary function tests, high resolution computed tomography of the chest and echocardiogram may be needed. Laboratory studies like complete blood count, liver and renal function tests, C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), anti-nuclear factor (ANF) and anti-ENA are required. Treatment options include topical agents like corticosteroids, tacrolimus, calcipotriene and imiquimod, phototherapy (UVA-1, narrow band UVB, broad band UVA), methotrexate, systemic corticosteroids (IV pulse, PO), mycophenolate mofetil, cyclosporin or other immunosuppressants. Physical and occupational therapy may be necessary for some patients. Surgery is another treatment option for functional and cosmetic defects.

Discoid lupus erythematosus (DLE) in children has similar clinical features as adults. Female predominance is less clear. Workup for DLE includes skin biopsy, complete blood count, liver and renal function tests, CRP, ESR, ANF and anti-ENA antibody. Antiphospholipid antibody and lupus inhibitor assay may be needed. The tests need to be repeated at least yearly especially in active disease. Treatments for DLE include sun protection, hydroxychloroquine, topical steroids, intralesional steroids and topical calcineurin inhibitors. Systemic medications include steroids, methotrexate, dapsone, azathioprine and mycophenolate mofetil.

### **Learning points:**

A thorough history and physical examination are necessary in management of paediatric dermatological conditions. Aggressive systemic medications may be needed to prevent long term complications.

## **Herpes zoster: controversies and conundrums in treatment and prevention**

Speaker: Dr. Lorraine L. Rosamilia  
Geisinger Health System–State College, Pennsylvania, USA

The term shingles is derived from the Latin word *cingulum* meaning belt or girdle with rash encircling the body. There are one million new cases each year in the United States. The pathophysiology is due to reactivation of the latent human  $\alpha$ -herpes virus in the cranial nerve or dorsal root ganglia, with spread of the virus along the sensory nerve to the dermatome. Increased age is the primary risk factor which is related to the decreased T-cell immunity to varicella virus (VZV). Important differential diagnoses include myocardial infarction, renal colic, appendicitis, cholecystitis, glaucoma, allergic contact dermatitis and blistering diseases. To establish the diagnosis, clinical symptoms and signs are most important. PCR for VZV DNA, direct immunofluorescent antigen assay for VZV antigen and virus culture are the available options.

Acute treatment is recommended for patients who have complications or are at risk of complications. Treatment should be initiated within 72 hours after the onset of skin rash. Acyclovir, valacyclovir and famciclovir are the available medications. To

relieve acute pain, NSAIDs, acetaminophen, opioids and tramadol can be used. Oral prednisone can reduce acute pain, improve daily function and shorten healing time. However, steroids do not reduce the incidence of postherpetic neuralgia and should be avoided in patients with obvious comorbidities. Herpes zoster vaccination, Zostavax<sup>®</sup>, a herpes zoster vaccine produced by Merck, was approved by the FDA for patients over 60 in 2006. In 2011, it was approved for patients with age  $\geq 50$ . Zostavax<sup>®</sup> is a live attenuated vaccine. It can boost VZV-specific cell-mediated immunity. It can prevent zoster and complications like postherpetic neuralgia. Common side effects include injection site reaction and headache. Contraindications for vaccine include pregnancy; immunocompromised patients; allergy to neomycin, gelatin or other vaccine components; and active untreated tuberculosis.

### **Learning points:**

Herpes zoster is a common dermatological problem. It can mimic other common medical conditions especially in the very early stage. Postherpetic neuralgia is not uncommon. Herpes zoster vaccination is available on the market which can reduce the chance of this important complication.