

Joint Annual Scientific Meeting 2015

Reported by CC Koh 許招財, WYK Lam 林旭強, EKY Yau 丘潔怡

Date: 20 September 2015
Venue: Sheraton Hong Kong Hotel & Towers, Tsimshatsui, Kowloon, Hong Kong
Organisers: The Hong Kong Society of Dermatology and Venereology and Hong Kong College of Dermatologists

The update on the treatment of infantile haemangioma

Speaker: Godfrey Chan
Department of Paediatrics and Adolescent Medicine, The University of Hong Kong, Hong Kong

About 2-3% of neonates in Hong Kong have infantile haemangioma (IH) which usually regress spontaneously. However, involution may be incomplete and take a long time. Beta-blockers have been used in the treatment of pyogenic granuloma, Kaposiform haemangiioendothelioma and tufted angioma with variable success. They have been found to be useful in the management of IH apart from systemic/topical steroids. The mechanism of beta-blockers is thought to be through vasoconstrictive function and the caspase pathway. Propranolol is a non-selective beta-blocker and is used as first-line treatment for proliferating IH requiring systemic therapy. The use of other beta-blockers (topical/intralesional) is under further study in which there is still controversy over the optimal dose, regimen, duration of treatment. The regimen used by the

Department of Paediatrics and Adolescent Medicine of Queen Mary Hospital is propranolol 0.5 mg/kg/dose QID PO with no subsequent adjustment of dose. Blood pressure, heart rate before and after treatment are monitored. Blood glucose one hour after treatment is also checked. Propranolol can be either taken in syrup form or in tablet form dissolved in water or milk. Symptoms that need to be monitored for include feeding problems, diaphoresis and respiratory distress. Side effects of propranolol include alteration in sleep (11%), acrocyanosis (5%), hypotension (0.3%), hypoglycaemia (0.3%), bradycardia (0.7%), bronchospasm, vomiting, diarrhoea, bronchitis, somnolence, irritability and decreased specific memory function. 0.5% topical timolol ophthalmic solution has been used in the treatment of superficial IH with a total response rate of about 82.8%. One drop (0.05 ml) is applied to the IH twice daily with vaseline to the surrounding area. The dose may be increased to three drops twice daily.

Learning points:

Propranolol is an effective systemic treatment for IH. Topical beta-blockers are also useful for the treatment of superficial IH.

Common paediatric dermatological problems: an update

Speaker: Francis FC Ip

Social Hygiene Service, Department of Health, Hong Kong

Common paediatric dermatological problems in Hong Kong are atopic dermatitis (AD), viral warts, naevi, acne vulgaris and birthmark. Common warts are caused by infection of the keratinocytes by the human papillomavirus (HPV). Infections by multiple types of HPV are common. Modes of transmission include person-to-person contact, indirect contact and autoinoculation. Ten percent of children aged 12 to 16 years were infected. One third resolve spontaneously in three months, and 50% clear up spontaneously within one year. Two thirds clear up spontaneously by two years. Adults show slow self-clearance. Previously infected patients have a higher risk of developing new warts. The duration of warts varies with the viral type, duration of infection and host immune response. There is no cure for wart and treatment of wart does not alter the transmissibility. Treatment mostly aims at symptom control and no single treatment shows complete effectiveness. Combination treatment may be required. Modalities of treatment include expectant, antimitotic (bleomycin, 5FU, podophyllotoxin), antiviral (cidofovir), immunotherapy (imiquimod, cantharidin), destructive methods (cryotherapy, curettage, excision) and laser (CO₂ laser, Erb: YAG laser, PDL, KTP laser).

Atopic dermatitis is a chronic pruritic inflammatory skin disease. Onset mostly occurs before six months old. Sixty percent of patients develop AD in the first year and 90% occur before five years old. AD resolves in the majority of patients but in 10-30% of patient's AD persists into adulthood. The pathogenesis includes skin barrier dysfunction (down-regulation of filaggrin, decreased ceramide level, increased proteolytic enzymes) and immune dysregulation. Risk factors include family history of atopy (70% AD patients have a positive family history) and

loss of function mutation of *FLG* gene (chromosome 1q21). The management of AD includes: clearance, prevention, maintenance and crisis management (in acute flare, secondary infection, eczema herpeticum). Wet wrap increases hydration but has the disadvantage of being time-consuming and might cause chills, paradoxical dryness, folliculitis, infection, striae in teenagers and side effects of topical steroid. Bleach bath works as an adjuvant anti-infective treatment. Sodium hypochlorite 4-6% solution is diluted with water (1:1000) and shows anti-staphylococcal activity.

Melanocytic naevi comprise three groups: small (<1.5 cm), medium (1.5 cm-19.9cm) and giant (>20 cm). The risk of melanoma in melanocytic naevi increases with the size of the lesion.

The treatment of acne includes topical treatment, isotretinoin and combination therapy.

Birthmarks have different origins: vascular/lymphatic (common), melanocytic (common), organoid such as sebaceous and follicular origin. Naevus simplex is one of the most common lesions.

Learning points:

Combination treatment of warts may be beneficial. Treatment of warts in children requires careful consideration especially if they may cause pain in small children. A tailor-made treatment plan and compliance of treatment are important in the management of AD.

Risk management and consent requirement for cosmetic procedures

Speaker: David Kan

Howse Williams Bowers, Hong Kong

A wide range of surgical and non-surgical cosmetic procedures are performed by dermatologists, plastic surgeons and general practitioners. It is important to obtain a proper informed consent according to the requirements of the recently updated Medical Council provisions. In addition to obtaining an informed consent, there are other aspects of clinical risk management including good medical record keeping and proper post-therapy care. The Bolam test was applied to informed consent. According to the Bolam test, the risks required to be informed and explained to the patient is determined by a practice accepted as proper by a responsible body of medical opinion. Until recently, the UK Supreme Court decided in *Montgomery v Lanarkshire Health Board* that the Bolam test should no longer be applied to informed consent. In this connection, a doctor is under a duty to take responsible care to ensure that the patient is aware of any material risks involved in any recommended treatment and of any reasonable alternative or variant treatments. It is likely that the *Montgomery* case ruling will be followed by the courts in Hong Kong.

Learning points:

Doctors should be aware of the requirements of informed consent according to the Medical Council provisions and the *Montgomery* case.

Biologics for psoriasis: a personalized approach

Speaker: Derrick Aw

Division of General Medicine (Dermatology), National University Hospital, Singapore

Where conventional systemic therapy has failed in managing difficult psoriasis, biologics offer a more targeted approach, a higher efficacy rate and a more convenient dosing. Biologics have the advantages of less side-effects, less need and cost for laboratory monitoring, and overall are more convenient for both the patient and physician. The choice of therapy depends on safety, efficacy, convenience, availability, pricing and funding of medications.

Secukinumab (Cosentyx®) is a new recombinant fully human IgG1 anti-IL17A monoclonal antibody. The onset of clinical effect is as early as within one to two weeks. The response rates of PASI 75, PASI 90 and PASI 100 at 12 weeks are 82%, 59% and 29% respectively. Secukinumab was superior to ustekinumab in achieving PASI 75 response at week 4 (50.0% vs. 20.6%). It was demonstrated to have sustained efficacy up to two years in an open-label extension from ERASURE and FIXTURE trials. Secukinumab was shown to have a safety profile comparable to ustekinumab. Pooled data from five Phase III studies revealed no evidence of tuberculosis reaction after secukinumab therapy. There were no new or unexpected safety findings with respect to malignancy and major adverse cardiac events from weeks 52 to 104.

Concerning the switching of biologics, it is necessary to optimise the current biologic before switching to another biologic. Patients who fail to respond to one biologic may respond to another even if the second biologic is from the same class e.g. anti-TNF drug.

Learning points:

The anti-IL17A therapy is a new and promising biologic for the treatment of psoriasis. It has been shown to have good safety profile so far.

Fractional radiofrequency using refined handpiece with small pin footprint and high density has been shown to improve acne scar appearance and textural uniformity by the enhancement of collagen production in the scar indentation and by causing ablation of the scar edges.

Fractional radiofrequency for improving acne scars in Asians

Speaker: Chi-keung Yeung

Hong Kong Dermatology and Laser Centre, Hong Kong

Bipolar radiofrequency energy delivered in a fractional manner has been shown to improve the appearance of acne scars and wrinkles. The fractional ablative laser technique removes a significant proportion of the epidermis and can result in post-inflammatory hyperpigmentation for Asians with darker skin types. Fractional radiofrequency technique has less impact on the epidermis than fractional ablative laser devices.

The electric field generated by the radiofrequency energy produces a pyramid-shaped thermal injury zone with the tip of pyramid at the epidermal surface. The therapy targets more dermal tissue with only minimal effect on the epidermis. This results in reduced downtime and a lower risk of post-inflammatory hyperpigmentation in Asian skin. The radiofrequency technology is used to induce thermal change to the mid-dermis by bulk coagulative effect, resulting in new collagen formation and improvement of acne scars and wrinkles.

Learning points:

Fractional radiofrequency technology minimises epidermal damage, reduces downtime and achieves a lower risk of post-inflammatory hyperpigmentation.