Allergic contact dermatitis in cosmetics

Speaker: Nai-ming Luk
Chairman, Hong Kong Dermatology Foundation

Allergic contact dermatitis (ACD) may be secondary to the use of cosmetic products such as mascara, perfume, make-up, hair and nail product, etc. They may give rise to adverse reactions such as irritation, allergic contact dermatitis, chronic urticaria, pigmentary disorder, photosensitivity and folliculitis.

It is estimated that ACD to cosmetics affects less than 1% of the general population and occurs mostly in females between 20-55 years of age. However, there is no data in Hong Kong.

Factors that affect sensitisation include: product composition, concentration of potential allergenic components, amount of product applied, application site, skin barrier integrity, frequency and duration of application.

At evaluation, the presence of dermatitis in certain sites will raise the possibility of ACD to cosmetics. The common sites for cosmetic ACD include: the face, ears, neck, scalp and hands.

Through history taking, checking the cosmetic products, physical examination and investigation by patch test, a management plan for the patient may be formulated. There are several patch test series available. Yet, if just the standard series is used, the causative allergens may be missed in 20% of cases.

The cornerstone of management for ACD to cosmetics is avoidance. Patient education, the replacement by substitutes and management of dermatitis by steroids or calcineurin inhibitors may also be necessary.

Learning points:
The diagnosis of ACD to cosmetic requires a high index of suspicion, carefull history taking and confirmation with patch test. Avoidance is essential in the management. Corticosteroid or calcineurin inhibitors may also be needed to control the dermatitis.
Balanitis: a survey in a private practice clinic
Speaker: Yuk-ming Tang
Dermatologist, Private Practice, Hong Kong

In his private practice, the speaker conducted a survey on patients presenting with balanitis or balanoposthitis as the primary diagnosis. A total of 140 patients fulfilled the criteria for analysis. Patients belonging to the paediatric age group were excluded. The mean age of presentation is 43.5 years and the majority of patients present with erythema (45%), followed by itch (35.7%) and pain or irritation (25.7%). Balanitis can be due to infectious, inflammatory, pre-malignant or malignant conditions. Among those with an identifiable cause, infection, followed by dermatitis and drug reactions were the commonest. Morphological features were often non-specific. Streptococcus species accounted for almost half of all the swabs yielding a positive result, followed by Escherichia coli, Haemophilus species and Candida albicans. Group B Streptococcus was strongly associated with balanitis as confirmed by some series. There also appeared to be a disproportionate trend towards balanitis caused by Candida albicans among patients with diabetes mellitus. None of the biopsies revealed pre-malignant or malignant causes. Most of the patients were uncircumcised. Condom use during vaginal sex was reported in 41.2% of cases; and oral-genital sex in 11% of cases, which is similar to an earlier study conducted in 1999.

Treatment comprises basic education on avoidance of irritants and excessive cleansing, identifying and ceasing culprit medications, normal saline dressing and various topical therapies.

Learning points:
Balanitis is not frequently caused by sexually-transmitted infections as many patients believed. Further investigation such as biopsy is warranted in chronic cases not responding to treatment.

Use of dermatological medications in pregnancy and lactation
Speaker: Chiu-choi Koh
Social Hygiene Service, Centre for Health Protection, Hong Kong

During pregnancy, topical drugs should be considered as first-line for most skin diseases. Some common topical dermatological medications that are in general considered to be safe during pregnancy include: benzoyl peroxide, clindamycin, erythromycin and metronidazole for acne and rosacea; topical steroids and calcineurin inhibitors for psoriasis and atopic dermatitis; nystatin, clotrimazole and miconazole as topical antifungals; permethrin, benzyl benzoate and crotamiton as antiscabetics and pediculocides.

On the other hand, many oral dermatological medications are contraindicated for pregnant ladies: oral tetracyclines may cause brown discoloration of fetal teeth; isotretinoin and acitretin may cause congenital malformation; methotrexate (MTX) may increase the risk of miscarriage and congenital malformations; azathioprine may increase the risk of atrial or ventricular septal defects; mycophenolate mofetil (MMF) may increase the risk of miscarriage and congenital malformations. Oral ciclosporin appears to be safe for foetus as no specific birth defect has been attributed to its use, but data on long-term outcomes are lacking. Hydroxychloroquine is safe for pregnant mothers with active lupus. Literature on dapsone does not indicate major foetal toxicity or congenital anomalies. Oral antihistamines are in general safe during pregnancy, and first
generation antihistamines are preferred over second generation because of the preponderance of safety data. Systemic antibiotics including penicillins, cephalosporins and macrolides are all considered to be safe, while systemic antifungals are not recommended in pregnancy due to extremely limited safety data. Many clinicians recommend that prolonged use of oral prednisone should be limited to 7.5 mg/day and the avoidance of more than 20 mg/day as it may result in premature delivery, premature membrane rupture, gestational diabetes, hypertension, pre-eclampsia and eclampsia. Both narrow band-UVB and broad band-UVB are safe during pregnancy, but PUVA (Psoralen + UVA) should be avoided as oral psoralen is associated with a marked increase in low birth weight babies.

**Learning points:**
Topical drugs should be the first-line therapy for skin diseases in pregnancy.

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### The psychological skin: a glimpse of its psyche

**Speaker:** Amos CY Cheung  
**Department of Social Work and Social Administration, The Hong Kong University, Hong Kong**

Our skin is very connected to our psyche. Psychodermatology which studies the link between the skin and psychology has made obvious advances in recent years. As the skin is one of the most visible organs of our body, people will always be concerned as to how they present themselves. Dermatological problems, therefore, can be very depressing.

In order to help these patients, care and concern are paramount. Recognition of psychological distress and referral to clinical psychologist for assessment are also important as well as treating the underlying dermatological condition.

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**Learning points:**
As many skin problems can lead to psychological distress, the clinician should be aware of associated psychological problems in the patient with skin problems and refer as indicated.

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### Adherence problem of psoriasis patients in Hong Kong

**Speaker:** Joey CY Jeung  
**Social Hygiene Service, Centre for Health Protection, Hong Kong**

Psoriasis is a skin disease with heavy psychosocial impact with complex interactions between patient, disease and treatment-related factors that may affect adherence. A pilot study was done in 2014 to look into the adherence problem of psoriasis patients in Hong Kong.

In the study, 26% of patients adhered to the topical treatment. The adherent group was found to be >50 years old, retired and had disease onset after 40 years old. The three major reasons for non-adherence were: (1) Forgot to use medications, (2) No time to use medications and (3) Medications were too difficult to use.

The study concluded that in order to enhance adherence, emphasis should not only be on how to improve patients' knowledge, but should focus on the younger and knowledgeable patients. It is always better for physicians to prescribe simple regimen for patients to follow and establish good relationship with patients to improve their satisfaction.

**Learning points:**
Adherence is a big problem in psoriasis treatment. More studies are needed on this aspect to improve adherence.
Steroid phobia
Speaker: Ellis KL Hon
Department of Paediatrics, The Chinese University of Hong Kong, Hong Kong

Topical steroid remains the first-line treatment for eczema. However, fears about steroid exist and result in some patients and careers underusing or wasting prescribed steroid medications.

Professor Hon conducted a study which recruited around 160 Chinese patients with eczema attending the paediatric dermatology outpatient clinic in 2014. The study found that 58% of all parents reported general acceptability of topical steroid as being very good or good; 41% of parents reported that they "always" or "often" applied steroid when the eczema got worse; 57% would discuss concerns of steroid side-effects with their doctors; and 30% would request steroid-sparing medications. Nevertheless, 14% of parents did not know exactly what steroid adverse effects to fear. The study revealed the extent of steroid fear was not associated with parental education or steroid acceptability. However, more steroid fear was associated with a lower quality of life. Steroid phobia was mostly due to the negative comments about steroids by friends, relatives or non-medical personnel. The primary concerns about potential adverse effects of steroid include skin thinning, bone and growth problems. As the cause for steroid phobia was predominantly interpersonal, Professor Hon suggested doctors should strive to establish good rapport and mutual trust with parents, so they would be more open to relay their concerns. Advice provided by doctors during patient education should be evidence-based and target the concerns experienced by patients and parents.

Learning points:
- Misconceptions about topical steroids may be detrimental to eczema control.
- Desensitisation of steroid phobia should be an integral part of eczema education and therapeutics in order to improve therapeutic efficacy and patients' quality of life.

Management of mucocutaneous infection in the HIV infected
Speaker: Thomas MK So
Specialist in Infectious Disease, Private Practice, Hong Kong

HIV infection can be associated with skin changes due to the depletion of CD4+ lymphocytes. It can also be facilitated by initial infection via Langerhans cells in mucosal tissue and there are numerous cutaneous manifestations. Usually the presentations are similar to those of the typical infections or dermatoses but are more florid, persistent and resistant to treatment.

Fever is the most common presentation in acute HIV infection syndrome. However, various dermatological symptoms are also found in acute HIV infection syndrome, namely, symmetrical erythematous maculopapular exanthema involving the face, palms, soles, trunks and limbs; and mucocutaneous ulceration. Some are atypical and present with fulminant immunological and clinical collapse, as well as opportunistic infection.

Penicilliosis is an AIDS-defining fungal infection, which is common to have skin lesions and oral lesions. It may present as generalised umbilicated papules, acne-like lesions or as a folliculitis. Pharyngeal and palatal lesions can also be seen. It can be diagnosed by identification of fungi from the clinical specimen.

Early recognition of HIV-associated oral lesions may reduce morbidity. Candidiasis should be differentiated from other erythematous oral lesions, e.g. Kaposi's sarcoma or erythroplakia. The creamy white plaques of pseudomembranous candidiasis are removable; while the white lesions of hairy leukoplakia are not. Hyperplastic candidiasis is unusual.
There are no specific symptoms or signs for acute HIV infection. Acute seroconversion of HIV infection manifests as a flu-like illness composing of fever, malaise and a generalised rash.

**Learning points:**
There are no specific symptoms or signs for acute HIV infection. Acute seroconversion of HIV infection manifests as a flu-like illness composing of fever, malaise and a generalised rash.

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**Cutaneous drug adverse reaction in practice**
Speaker: Shun-chin Ng
Social Hygiene Service, Department of Health, Hong Kong

Cutaneous drug adverse reactions are commonly encountered in dermatology and general practice. Cases of cutaneous drug adverse reactions including severe cutaneous adverse reaction (SCAR) were discussed. The principles of management are early recognition and withdrawal of the culprit drugs, supportive or disease-specific treatment and avoidance of future use of culprit drugs. Morbilliform drug eruption, fixed drug eruption (FDE), acneiform eruption are milder forms of cutaneous drug reaction.

Erythroderma is a generalised exfoliative dermatitis of more than or equal to 90% body surface area. Stevens-Johnson syndrome (SJS), SJS-TEN overlap syndrome and toxic epidermal necrolysis (TEN) are SCAR with widespread epidermal necrosis of <10%, 10%-30% and >30% total body surface area respectively. SCORTEN is used to predict mortality. Certain genotypes have been linked to SCAR with certain medications (e.g. Allopurinol: HLA-B5801, sulphonamides, anticonvulsants such as carbamazepine: HLA-B1502). Lamotrigine, phenobarbital, and phenytoin are also common culprits. While intensive care and close monitoring of vital signs and hydration are needed, treatment with systemic steroid is controversial. Other treatment modalities include intravenous immunoglobin (IVIG) and cyclosporin.

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**Learning points:**
Cutaneous drug adverse reactions are common in dermatology and general practice. Prompt recognition and withdrawal of the culprit drugs, supportive or disease-specific treatment and avoidance of future use of culprit drugs are the principles of management.

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**Living with psoriasis: an integrative body-mind-spirit approach in enhancing holistic well-being**
Speaker: Celia HY Chan
Department of Social Work and Social Administration, The University of Hong Kong, Hong Kong

Psoriasis is a chronic inflammatory skin disease and is found to be associated with psychological morbidities, anxiety disorder, depression and increased suicidal ideation. Previous research studies have indicated that psoriasis affects physical and mental functions as much as other chronic illnesses such as cancer, heart disease, depression and diabetes.

In the Integrated Body-Mind-Spirit (IBMS) Model, participants receive information about body-mind-spirit interconnectedness and intensive training on mind-body techniques, including breathing exercise, therapeutic massage,
simplified ‘qigong’ exercise and acupressure. In a recent quasi-experimental study of 40 people with psoriasis, participants showed improvement in dermatology related scores such as Skindex 29, Dermatology Quality of Life Index and Psoriasis Disability Index. They also showed better emotional management, body awareness, acceptance and perceived benefit of disease experience after the intervention sessions. The promising result implies that IBMS can be adopted as a complementary psychosocial treatment that improves quality of life and enhances holistic well-being of people with psoriasis.

**Learning points:**
Psoriasis is a chronic inflammatory skin disease that impacts on patients’ physical and mental condition. The Integrated Body-Mind-Spirit (IBMS) Model can be considered as a complementary psychosocial treatment for people with psoriasis.

**HIV-related dermatology**
Speaker: Chi-keung Kwan
Social Hygiene Service, Centre for Health Protection, Hong Kong

Studies suggest that around 86-96% of patients infected with human immunodeficiency virus (HIV) have mucocutaneous manifestations and that there were approximately 2.4 skin problems per patient. HIV attacks the skin Langerhans cells and dermal dendritic cells. The immune status of patients affects their skin manifestations: patients with a lower CD4 count have more opportunistic infections. In early HIV infection (CD4 count >500 cell/µL), skin problems may include acute viral syndrome, Kaposi’s sarcoma, viral warts and vaginal thrush. With advanced immunosuppression (CD4 count <100 cell/µL), skin problems may include cutaneous penicilliosis, non-healing and large herpetic lesions, cutaneous cryptococcus and disseminated cytomegalovirus infection. Geographical location is also another concern. It is well known that penicilliosis is common in South-east Asia and rare in America.

HIV-related dermatosis can be broadly classified into three categories: infective dermatosis, inflammatory dermatosis and neoplasm. Regarding infectious diseases and infestations, HIV infection should be considered when there is a severe, recalcitrant and sudden onset of crusted scabies, human papillomavirus (HPV) infections (warts, epidermodysplasia verruciformis) as well as syphilis. HIV infection should be considered in all opportunistic infections (penicilliosis, cryptococcosis and bacillary angiomatosis), disseminated herpes simplex virus (HSV) infection or multidermalomal zoster infection, oral hairy leukoplakia, oropharyngeal candidiasis (thrush), anogenital ulcerative plaque as well as proximal subungual onychomycosis.

Regarding inflammatory dermatosis, HIV infection should be considered when there are severe, recalcitrant, sudden onset of seborrhoeic dermatitis, psoriasis vulgaris and reactive arthritis. HIV infection should also be considered in patients with eosinophilic folliculitis and pityriasis rubra pilaris (PRP) Type VI. Associated neoplasms include lymphoma and Kaposi’s sarcoma.

Immune reconstitution inflammatory syndrome (IRIS) describes a collection of inflammatory disorders following the initiation of highly active antiretroviral therapy (HAART) in HIV-infected patients in which the immune system begins to recover. The immune system responds to a previously acquired opportunistic infection with an overwhelming inflammatory response, paradoxically worsening symptoms. It may be fatal especially when associated with cryptococcal meningitis. IRIS indirectly serves as visible marker for an appropriate response to HAART in resource-limited centres. Regarding the management, HAART should be continued
and the standard treatment of the offending opportunistic infection should also be continued. Systemic corticosteroids to suppress the inflammatory response may be needed.

Managing patients with HIV-related dermatosis requires knowledge in both dermatology and HIV medicine and the geographical prevalence of different diseases.

**Learning points:**
Human immunodeficiency virus (HIV) infection is a rapidly growing global problem. Physicians should consider HIV infection in certain infective or inflammatory dermatoses and neoplastic conditions.

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**Skin microbiome**
Speaker: Mamie Hui
Department of Microbiology, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong

The human body is colonised by various microbial organisms. Microbiota describes the microbial population inside the human body. Dysbiosis is the disturbance of the microbial ecosystem. Metagenomics is the study of microbial genetics in diverse environment and allows cataloging of genes in a community.

The availability of high throughput DNA sequencing technologies has allowed various phyla of microbial organisms to be analysed in groups rather than individually. Insights into relationship with other non-infectious diseases can be gained, e.g. inflammatory bowel disease, immune-mediated arthritis etc. Factors such as the effects on the microbiota alterations (e.g. antibiotic use, diet etc.) can be studied.

Recent advances in skin microbiome research and its potential implications in atopic dermatitis and psoriasis are being explored.

**Learning points:**
Recent advances in skin microbiome research and its potential implications in atopic dermatitis and psoriasis are being explored.

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**Update on hyperhidrosis**
Speaker: Steven KF Loo
Dermatologist, Private Practice, Hong Kong

Hyperhidrosis is defined as sweating in excess of that required for normal thermo-regulation. Any site of the body can be affected by hyperhidrosis. The commonly affected sites are palms, soles and axillae. Hyperhidrosis may be primary or secondary. If it appears unilaterally, or is newly onset in the elderly, further investigation should be done to rule out neurological or endocrine pathology.

Dr. Loo shared with the audience the management of axillary hyperhidrosis and palmar hyperhidrosis. Axillary hyperhidrosis may be improved by: topical aluminum chloride, oral oxybutynin, injection of botulinum toxin, device energy-based treatment (e.g. microwave technology) and endoscopic thoracic sympathectomy.

Palmar hyperhidrosis may be improved by: oral oxybutynin, iontophoresis, injection of botulinum toxin and endoscopic thoracic sympathectomy.

**Learning points:**
Therapy for hyperhidrosis is challenging. Topical, oral, device-energy based treatment and surgery are various treatment options that may be considered.