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THE HONG KONG MEDICAL DIARY

香 港 醫 訊

VOL.23 NO.11 November 2018

Dermatology

OFFICIAL PUBLICATION FOR THE FEDERATION OF MEDICAL SOCIETIES OF HONG KONG ISSN 1812 - 1691

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Effectively relieve symptoms associated with allergic rhinitis, urticaria#, chronic idiopathic urticaria^

- Fast onset of symptom relief[2] *
- Efficacious[3,4]
- 27-hour half-life[5]
- Less-sedating & Less-drowsy[6] †
- No interaction with grapefruit juice[7]
- Convenient syrup formulation for patients as young as 6-month-old[8] ‡
- No impairment of driving performance vs placebo[9] **

Indication of Aerius Tablet

^ Indication of Aerius Syrup

* Efficacy data were from four post marketing surveillance studies involving 77,880 subjects using oral desloratadine 5mg tablet daily for Seasonal Allergic Rhinitis and Chronic Idiopathic Urticaria. Onset of action results were subject-rated from post hoc analysis of these studies (n=17,575) where subjects had previously received monotherapy with another second generation antihistamine (cetirizine, fexofenadine, loratadine or mizolastine). AERIUS® shows fast onset of symptom relief compared with other second generation antihistamines rated by 67% of subjects.

† Risk of sedation and drowsiness is lower than levocetirizine ($P < 0.0001$) in patients with allergic rhinitis without asthma/wheezing.

‡ AERIUS® Syrup is indicated for the relief of the nasal and non-nasal symptoms of perennial allergic rhinitis in patients 6 months of age and older.

** In a driving performance & psychomotor performance study, at therapeutic dose of 5mg, no significant difference weree noted between desloratadine & placebo in standard deviation of lateral position (SDLP), one of the parameter to measure driving performance.

INDICATIONS:
AERIUS® Tablets:
AERIUS® Tablets are indicated for the relief of symptoms associated with allergic rhinitis (AR), and urticaria.
AERIUS® Syrup:
Seasonal Allergic Rhinitis: AERIUS® Syrup is indicated for the relief of the nasal and non-nasal symptoms of seasonal allergic rhinitis in patients 2 years of age and older.
Perennial Allergic Rhinitis: AERIUS® Syrup is indicated for the relief of the nasal and non-nasal symptoms of perennial allergic rhinitis in patients 6 months of age and older.
Chronic Idiopathic Urticaria: AERIUS® Syrup is indicated for the symptomatic relief of pruritus, reduction in the number of hives and size of hives, in patients with chronic idiopathic urticaria 6 months of age and older.

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Adults and adolescents (>=12 years of age): One AERIUS® 5mg film-coated tablet once a day for the relief of symptoms associated with allergic rhinitis (including intermittent and persistent allergic rhinitis) and urticaria. For oral use.
AERIUS® Syrup, Desloratadine (0.5mg/ml)
Adults and adolescents (>=12 years of age): 10ml (5mg) AERIUS® syrup once a day, regardless of mealtime.
Children 6 through 11 years of age: 5ml (2.5mg) AERIUS® syrup once a day, with or without a meal.
Children 1 through 5 years of age: 2.5ml (1.25mg) AERIUS® syrup once a day, with or without a meal.
Children 6 months through 11 months of age: 2ml (1.0mg) AERIUS® syrup once a day, with or without a meal.

CONTRAINDICATIONS:
Hypersensitivity to the active substance or to any of the excipients.

PRECAUTIONS:
AERIUS® Tablets: Efficacy and safety of AERIUS® Tablets in children under 12 years of age have not been established. Effect on ability to drive and use machines: No overall effects on the ability to drive and use machines have been observed.
AERIUS® Syrup: Efficacy and safety of AERIUS® Syrup in children under 6 months of age have not been established. Effect on ability to drive and use machines: No overall effects on the ability to drive and use machines have been observed.
USAGE DURING PREGNANCY AND LACTATION: No teratogenic or mutagenic effects were observed in animal trials with desloratadine. Since no clinical data on exposed pregnancies are available with desloratadine, the safe use of AERIUS® Tablets and AERIUS® Syrup during pregnancy has not been established. AERIUS® Tablets and AERIUS® Syrup are not to be used during pregnancy unless the potential benefits outweigh the risks. Desloratadine is excreted into breast milk; therefore the use of AERIUS® Tablets and AERIUS® Syrup are not recommended in breast-feeding women.
Before prescribing *AERIUS®*, please consult the full prescribing information.
AERIUS® is contraindicated in patients who are hypersensitive to the active substance or to any of the excipients.
AERIUS® Tablet: In clinical trials in a range of indications including AR and CIU, at the recommended dose of 5mg daily, undesirable effects with AERIUS® Tablets were reported in 3% of patients in excess of those treated with placebo. The most frequent adverse events reported in excess of placebo are: fatigue (1.2%), dry mouth (0.8%), and headache (0.6%).
AERIUS® Syrup: The overall incidence of adverse events a in children 2 through 11 years of age was similar for AERIUS® Syrup and the placebo groups. In infants and toddlers aged 6 to 23 months, the most frequent adverse events reported in excess of placebo were diarrhea (3.7%), fever (2.3%) and insomnia (2.3%). At the recommended dose of 5 mg daily, undesirable effects with AERIUS® Tablets were reported in 3% of patients in excess of those treated with placebo. The most frequent adverse events reported in excess of placebo were fatigue (1.2%), dry mouth (0.8%), and headache (0.6%).

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LHK/MKT/10.2018.2394

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The Cover Shot

Sunset in Venice

This has been taken near Gondola Pier in Venice during sunset time.

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Published by
The Federation of Medical Societies of Hong Kong

Design and Production
A-PRO MULTIMEDIA LTD www.apro.com.hk

Skin Diseases – More Than Skin Deep

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Honorary Consultant Dermatologist, Hospital Authority
Editors


Dr Kingsley HN CHAN

Although the skin is our body's largest organ, skin diseases rarely receive a proportional degree of attention from the general public. Skin diseases are often dismissed as superficial afflictions or something that will go away on its own in time as it is considered rarely or never lethal. However, as shown in the tragedy of the Tuen Mun youngster who suffered from chronic eczema and subsequently killed her parents as well as herself, skin diseases can have a huge psychological impact and widespread social implications.

In addition to eczema, patients suffering from acne, psoriasis and other highly visible and irritating physical skin conditions also suffer mentally. Not only does the patient suffer, his/her family and friends also suffer. Various studies have shown that psychiatric disorders such as depression, anxiety disorders and social phobia can develop secondary to acne vulgaris. Acne patients even report higher levels of anxiety and depression than patients with serious medical illnesses, such as cancer. As a result, by providing acne patients with effective treatment, not only can we treat their physical problems, we can also significantly improve their psychological well-being including raising self-esteem, and help build a more positive body image and self-confidence.

In this issue of the Medical Diary, we are delighted to have experienced dermatologists to give a broad coverage of our speciality with articles encompassing both medical and cosmetic Dermatology as well as sexually transmitted diseases.

First and foremost, I would like to express my utmost gratitude to Dr KK Lo, a highly-skilled dermatologist and the former consultant-in-charge of the Social Hygiene Service for sharing his experience: An update to treat eczema. Thank you also to Dr William Tang, another eminent dermatologist in private practice, for his comprehensive review on vitiligo. My gratitude also goes to Dr Mimi Chang, another renowned dermatologist, previously the division chief of Dermatology, Prince of Wales Hospital, for sharing her experience in the management of acne inversa. Thanks are also due to Dr Josephine Tsang, an outstanding Dermatology trainee in Queen Mary Hospital, for sharing some interesting case reports on rare skin diseases.

Sexually transmitted disease is another area that falls within our speciality. Thank you Dr CK Kwan, a highly-regarded dermatologist, Senior Medical Officer of the Department of Health for sharing some local experience and data on STDs.

Last but not the least, my heartfelt thanks go to Dr Henry Chan, a renowned dermatologist and Honorary Professor of the University of Hong Kong, for sharing his experience and knowledge on the latest cosmetic dermatological treatments.

Finally, on top of academic talents, I am also indebted to Dr Mildred Wat for sharing her artistic talent by contributing a beautiful photo for our cover page.

I hope these articles will convince you that dermatological issues are indeed more than just skin-deep, and will encourage everyone to give skin diseases their due attention and care. May I also take this opportunity to wish you all a joyful Christmas and all the best in 2019.

CeraVe
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3 ESSENTIAL CERAMIDES TO RESTORE SKIN'S NATURAL BARRIER

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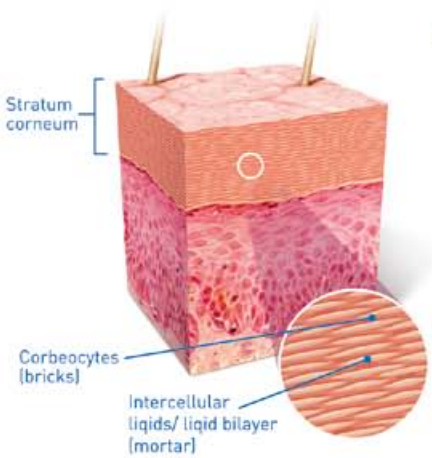
▲ CeraVe contains a mixture of 3 skin-identical ceramides: ceramide 1, ceramide 3, and ceramide 6-II, plus cholesterol, fatty acids, and phytosphingosine. Together these ingredients have a synergistic effect in repairing the skin barrier.

CERAMIDES: AN ESSENTIAL COMPONENT OF THE SKIN

A healthy stratum corneum is crucial for skin barrier function[2]

The epidermis is made up of four sub-layers, one of which is the stratum corneum. The stratum corneum, often referred to as a brick wall-like structure, is comprised of corneocytes held in place by a defined ratio of intercellular lipids[2,3].



▲ The lipid bilayer is primarily comprised of three intercellular lipids that are crucial for hydration and protection from external irritants[2,3]:

- 50% CERAMIDES
- 25% CHOLESTEROL
- 10% - 20% FATTY ACIDS

▲ Damage to the lipid bilayer causes skin barrier dysfunction

Reorganization of the intercellular lipids in the stratum corneum causes reduced skin barrier function, resulting in[2]:

- Moisture loss, leading to dryness and cracking
- Inflammation and irritation from allergens and toxins

How dose MVE® technology work?

MVE® technology delivers concentric layers of oil-in-water emulsions. These layers slowly unfold upon application, continually releasing ingredients for the skin to absorb as needed[4].

CeraVe delivers ceramides 1, 3, & 6-11, cholesterol, and fatty acids over 24 hours[5]

The patented Multivescular Emulsion (MVE®) delivery technology found in CeraVe delivers multiple layers of skin-identical ingredients slowly over time, allowing ceramides and other key lipids to help restore and maintain the natural protective function of the skin.[4,5]

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Recent Advances in Laser and Energy-based Devices in Cosmetic Dermatology: What is New from The Wellman?

Dr Henry HL CHAN

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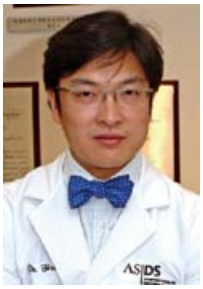

Dr Henry HL CHAN

The Wellman Center for Photomedicine, Massachusetts General Hospital, Harvard Medical School, has long been established as the birthplace of important concepts in the application of laser and energy-based devices in Dermatology. One such concept is the theory of selective photothermolysis, which involves the matching of the laser's wavelength to the absorption spectrum of the target and limits the laser exposure time to match the size of the target thus preventing unnecessary heat transfer to the surrounding tissue. In so doing, lasers can be used to treat conditions including freckles, port wine stains and naevi of Ota.[1]

Extended theory of selective photothermolysis describes the means to allow photothermal injury to be extended to important surrounding structure of the target (heat disseminates from the pigment-containing cells of the hair follicles to the stem cells region).[2] Such use of laser, together with skin cooling to protect the epidermis, allows procedures such as permanent hair removal and treatment of port wine stains to be performed.

Fractional photothermolysis is a concept of cutaneous re-modelling, whereby laser is used to induce zones of microscopic thermal injury; these zones of tissue denaturation are areas of 50 to 100 microns in diameter, surrounded by normal viable tissue.[3] As the area of thermal injury is very small, the lateral migration of keratinocytes occurs rapidly, which leads to the complete re-epithelialisation of the epidermis within 24 hours. By taking into consideration the mismatch between the epidermal and dermal healing processes, fractional photothermolysis allows skin rejuvenation to be achieved with a minimal risk of complications and a high degree of efficacy.

Cryolipolysis allows non-invasive fat reduction to take place as a safer alternative to liposuction. Finally, radiofrequency needling is also one of many technologies originating from the Wellman.[4] This article will discuss some of the newest technologies master-minded by this great institution.

WHAT IS NEW IN FRACTIONAL TECHNOLOGY?

Ablative fractional resurfacing was once considered an effective means for skin tightening: by vaporising a core zone of tissue, immediate skin tightening would occur. However, such immediate response was not long-lasting, as the subsequent healing process would lead to filling of the previous damaged space. As a result, while ablative fractional skin resurfacing can be effective for the treatment of scars and wrinkles, its role in skin tightening appears to be limited. To overcome such issue of tissue healing that resulted in diminished skin tightening effects, a micro-excisional device for skin rejuvenation was developed. The device removed full thickness dermal micro-cores, and by physical closure in a directional manner, skin tightening can be achieved. The initial animal study involved the use of 19-gauge skin coring needles on porcine model, and wound was closed in a directional manner using elastic adhesive dressing. The result indicated that significant skin shrinkage could be obtained and the direction of shrinkage was influenced by the direction of wound closure.[5] In another animal study comparing (1) fractional laser induced holes to be followed immediately by compressive closure, and (2) needle core excision induced holes and compressive closure, against (3 and 4) without closure for both methods as controls, (1) and (2) led to significant directional skin tightening in laser as well as in needle induced holes as compared to the controls.[6] Early clinical data showing promising efficacy and safety were presented in the American Society of Lasers in Medicine and Surgery annual meeting last April.[7] The device is still awaiting FDA approval.

Traditional split thickness skin graft is a common procedure for burn injury or surgical oncology. The morbidity and cosmetic outcome for the donor site are often suboptimal with scar formation leading to pain, discomfort and disfigurement. For the grafted site, as split thickness skin grafting (STSG) is used, only the epidermis and upper portion of the dermis is included. Reticular dermis and the other important deeper structures including hair follicles and sweat glands are not included. This often leads to scarring and disfigurement especially when skin from another anatomical area is used. Ablative fractional resurfacing has revealed that, despite removal of significant proportion of the skin, complete healing can occur without scarring provided that it is executed in a fractional manner. Based on such observation, the concept of fractional full thickness skin grafting is proposed. In the first animal study using a swine model, a harvesting device harvested hundreds of columns (700um) of full thickness skin tissue, which were then applied directly to excisional skin wound.[8] Healing in donor and grafted sites were observed for 3 months clinically and histologically, and compared with healing by secondary intention and by STSG. For the donor site treated with the harvest device, the skin rapidly healed within days and became normalised clinically and histologically by 7 weeks. In contrast, donor sites from STSG retained clinical and

histological evidence of scar. This study indicates that such fractional harvesting approach is associated with aversion of donor site morbidity.

To further examine the role of such autologous tissue regeneration by micrografting of full thickness skin, human abdominal skin obtained from abdominaloplasties cases were used. Full thickness skin micrografting (400-700um) was done on such human tissue, which was then grafted to excisional wound of immunodeficient mice.[9] By 8 weeks, the skin was tested for sweat production using agonist stimulation test and examined histologically for cellular population and adnexal structures. The result shows that the restored skin shared many features of normal skin including epidermal and adnexal structures, sweat production and diverse cellular population. The first clinical study looking at the degree of pain at the donor site has just been published and the findings indicate minimal pain. However, long-term efficacy data are lacking.[10] Further studies are needed to confirm the effectiveness of such fractional full thickness autologous micrografting in the management of wound healing.

Although fractional laser has traditionally been used for dermatological applications such as scar treatment, its application in other organs is currently being evaluated at the Wellman. Furthermore, a recent animal study indicates that ablative fractional resurfacing can release tumour-associated antigens in poorly immunogenic tumours, thus inducing systemic immunity.[11]

WHAT IS NEW IN ACNE?

Laser and light sources have been used to treat acne and these include pulse dye laser, 1450nm diode laser and blue light. While initial results were promising, such applications failed to gain popularity owing to the lack of long-term efficacy and therefore raised doubt on their cost-effectiveness. Photodynamic therapy (PDT) was once established to be another effective means to treat acne vulgarus with histological evidence of volumetric reduction of the sebaceous glands and yet, as a result of the required down time and associated side effects including pain, erythema, crusting and swelling, PDT has failed to establish itself to be part of the standardised treatment regimen for acne.

In recent years, gold nanoparticles have been used to be deposited in sebaceous glands. The subsequent use of 800nm diode laser, which is selectively absorbed by the gold nanoparticles, can lead to selective destruction of the sebaceous glands. Larger scale clinical studies are needed to demonstrate the safety and long-term efficacy of this new therapeutic option.[12]

Cryolipolysis refers to the process of cryoinjury, under specific controlled cooling parameters, leading to selective damage to lipid containing tissues. In a study that examined the longitudinal, 3D in vivo imaging of sebaceous glands by coherent anti-Stokes Raman scattering microscopy, it was shown that under controlled cooling conditions, sebaceous glands can be selectively damaged with volumetric reduction, which suggests that such an approach can have potential in the treatment of acne vulgarus.[13] Lipid as a target for selective photothermolysis was established by the Wellman. There are already devices on the market utilising such technology for non-invasive fat reduction. As the main concern is pain, different delivery methods are currently being investigated to overcome this issue.

WHAT IS NEW IN TREATMENT OF PIGMENTARY CONDITIONS?

Cryolipolysis is the first description whereby different cellular functions react in a differential manner to cryoinjury. This concept of differential cooling, although not previously well described in the literature, is a concept that we at the Wellman are well aware of. Besides adipocyte, melanocyte is also susceptible to cryoinjury. Indeed, one of the main complications after cryotherapy after the treatment of common dermatological conditions such as viral wart is hypopigmentation, while extreme cooling with the use of liquid nitrogen induces excessive tissue reaction such as crust and blister formation. The dosimetry and role of controlled skin cooling on epidermal pigmentation deserves further investigation. In an animal study presented at this year's American Society of Lasers in Medicine and Surgery, specific cooling range of approximately (-3 to-9 C) with exposure time (15-60 seconds), was found to effect a mild pigment reduction (score of 3 or lower) in the absence of notable side effects.[14] This new innovative concept is named "cryomelanolysis". Clinical studies presented at the same meeting indicate promising results with limited adverse effects as well as lack of discomfort during the treatment.[15] Although the device has received FDA approval, it will not be commercially available for at least another 12-18 months.

Acknowledgment: Wellman Scientists whose works were cited in this article: Dr R Rox Anderson, Dr Henry H.L. Chan, Dr Dieter Manstein

Disclosure: The author receives royalty, equity and milestone payment from some of the above technologies described in the article.

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Sexually Transmitted Infections – Challenges Ahead

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Dr Chi-keung KWAN

INTRODUCTION

Sexually transmitted infections (STIs) are one of the commonest infectious diseases. However, they are often neglected by not only clinicians, patients, researchers but also governments. Traditionally, the term "Sexually Transmitted Diseases (STDs)" has been used. Nowadays, more authorities including World Health Organization (WHO) prefer the term "sexually transmitted infections" (STIs) because the majority of STIs may not necessarily have symptoms or may have only very mild symptoms that may not be recognised by patients as a disease. Common STIs include syphilis, gonorrhoea, chlamydia, pubic pediculosis, trichomoniasis, genital herpes, genital warts and Human Immunodeficiency Virus (HIV) infections. With the growing population and increasingly high-risk sexual activities and behaviours, we, as clinicians treating STIs, are facing mounting challenges.

BURDEN OF STIs

The World Health Organization (WHO) estimated that more than 1 million STIs are acquired every day worldwide.[1] There are an estimated 375 million new infections in 4 common STIs including chlamydia, gonorrhoea, syphilis and trichomoniasis each year.[1] Over 500 million people are having genital herpes[1] and over 200 million women have human papillomavirus (HPV) infection.[2] Moreover, more than 900,000 pregnant women were infected with syphilis resulting in approximately 350,000 adverse birth outcomes including stillbirth, preterm, low birth weight infants and infected newborns globally.[3] These figures look very scary but it is the reality. This is definitely a challenge. The WHO has set targets to have 90% reduction of the syphilis and gonorrhoea incidence by 2030 and aims at ending the STI epidemics as a major public health threat.[4] In Hong Kong, there is no detailed nor official STIs epidemiological data since it is not a notifiable disease. According to the report issued by the Department of Health, Hong Kong, the attendance of Social Hygiene Clinics, which are the only public STI clinics in Hong Kong, was 150,234 in 2016 and the number of new diagnosed STIs during that year are shown in Table 1.[5] Not counting the old cases and those treated elsewhere, the attendance and the number of new cases in Social Hygiene Clinics are not small. Nevertheless, the figures fall short of reflecting the overall picture of the STI situation in Hong Kong. The burden of this problem in Hong Kong remains unknown.

Table 1. Number of New Cases of STIs in Social Hygiene Clinics 2016[5]

Newly Diagnosed STIs in 2016	No. of Cases
Non-gonococcal urethritis (NGU)	3542
Non-specific genital tract Infection (NSGI)	2125
Genital Warts	1874
Gonorrhoea	1433
Syphilis	1021
Genital Herpes	780

RESISTANCE TO ANTIBIOTICS

Antibiotic resistance is a major concern especially in the management of bacterial STIs such as *Neisseria gonorrhoeae* (NG) and *Mycoplasma genitalium* (MG) infections. Since the first antibiotic, the sulphonamides, were introduced for treatment of gonorrhoea in the mid-1930s, gonococci showed its excellent ability to develop antibiotic resistance and it made use of almost all antibiotic resistance mechanisms to fight against different antibiotics. According to the experience in Social Hygiene Clinics, the antibiotic treatment for NG infection requires a change every 10 to 15 years owing to the development of antibiotic resistance.

In the pre-antibiotics era, every method that people could think of such as herbs, urethral irrigation, and metallic compounds like gold, silver or arsenic compounds were introduced for NG treatment. After the first antibiotic the sulphonamides came into the market for NG in mid-1930s, they lasted for around 15 years till the late-1940s, by which time they had to be replaced by penicillins. Penicillins were used for almost 30 years until the mid-1970s when antibiotic resistance ensued. Following the penicillins came the tetracyclines NG treatment but they lasted for 10 years only, in the face of the rapid development of plasmid-mediated resistance. Quinolones, especially the fluoroquinolones, became the mainstay treatment for NG between the mid-1980s to the mid-1990s and were then replaced by the oral third generation cephalosporins, Cefuroxime or Ceftibuten (Cedax® in Hong Kong) from mid-1998 to mid-2011.[6] History is often repeated and ceftibuten resistance developed and intramuscular ceftriaxone became the first-line treatment for NG infection in 2011.[7,8] Since then up to July 2018, there have already been 7 ceftriaxone-resistant NG isolates in Hong Kong according to the Centre for Health Protection, the Department of Health, Hong Kong.[9] How long can ceftriaxone be used for NG? It is really a challenge.

Moreover, azithromycin resistance is also a problem in the management of NG in Hong Kong. The azithromycin resistance rate in NG is around 8% to 10%.[9] A Hong Kong study showed that during June to December 2010, the Public Health Laboratory Centre (PHLC) in Hong Kong tested 485 NG strains for azithromycin minimal inhibitory concentration(MIC) and found 69.7% susceptible; 22.3% intermediate sensitive and 8% resistant[10] whereas the NG azithromycin resistance rate was only 0.5% in the United States in 2010.[11] Therefore, it is not recommended to use azithromycin alone as an empirical treatment for NG infection in Hong Kong unless the sensitivity test of azithromycin has been known and the test of cure is ensured for patients.

MYCOPLASMA GENITALIUM INFECTION

Mycoplasma genitalium (MG) is another STI that frequently encounters antibiotic resistance. It is commonly resistant to macrolides and even quinolones. Besides its resistance, MG itself, as a whole, is another STI challenge.

MG is a fastidious bacterium with a prolonged growth cycle. Its lack of cell wall make MG unaffected by many antibiotics especially the penicillin and cephalosporin groups. It causes non-gonococcal urethritis (NGU), a common STI. Although most international guidelines on STIs by the United States[12], the United Kingdom[13], Europe[14] and Australia[15] state that *Mycoplasma genitalium* is a cause of NGU, the diagnostic test of MG is still not available in the Hong Kong public sector. Thereby, the Social Hygiene Clinics are just including all potential MG cases into the group of NGU. The antibiotics used are probably azithromycin 1gm for one dose or doxycycline 100mg BD for 7 days. However, the efficacy of doxycycline, used extensively to treat NGU in Social Hygiene Clinics, is relatively poor for MG infection[16]. Azithromycin has been the preferred treatment for MG for several years and research on the efficacy of azithromycin has primarily focused on the 1gm single-dose regimen. The extended 1.5gm regimen is thought to be more efficacious than the 1gm single-dose regimen.[16] If standard treatment of NGU is used for MG infection without proper confirmatory diagnostic test, the efficacy is poor and antibiotic resistance may be induced.

Not only the availability of confirmatory test of MG poses a problem, the rapid development of antibiotic resistance is also another challenge in MG. Recent reports have showed that the prevalence of MG resistance induced after azithromycin therapy has been rising[16]. Azithromycin has a cure rate of 85–95% in macrolide-susceptible infections[14]. An extended course appears to have a higher cure rate. However, an increasing prevalence of macrolide resistance, most likely due to widespread use of azithromycin 1gm single dose without test of cure, is drastically decreasing the cure rate[14]. Macrolide resistance is likely to be present in at least half of the infections in Australian cities and treating a macrolide-susceptible MG infection with azithromycin will result in treatment failure and macrolide resistance in about 10% of infections[15]. Based on studies from the eastern states of Australia, the resistance was present in 50% of infections in heterosexuals and 80% in men who have sex with men(MSM).[15]

Moxifloxacin can be used as second-line therapy but resistance is present in 10–15% of infections and is increasing[15]. Another study found fluoroquinolone and macrolide resistance is associated mutations in 15% and 43% MG specimens respectively[17]. The macrolide failure was associated with 23S rRNA gene mutation while the fluoroquinolones were related to parC and gyrA mutations.[17] Failure of first- and second-line antibiotic treatment of M. genitalium infection is occurring and likely to increase with current treatment strategies.[17] Consequently, the lack of diagnostic and resistance tests of MG in Hong Kong Social Hygiene Clinics, which is the only public sector care provider for STI treatment, MG as a whole is definitely posing a threat and challenge on STI management.

NEW ENTITY STI? – STEIs

Enteric diseases such as hepatitis A infection, giardiasis, entamoeba histolytica, shigella and so on, are traditionally acquired through ingestion of contaminated food or water. However, more and more reports have suggested these enteric pathogens can also be transmitted through sexual activities involving faecal-oral contact, such as oral-anal, oral-genital and anal-genital intercourses. These are called "Sexually Transmitted Enteric Infections (STEIs)".

STEI is not a new entity and has been reported in the 1970s. A paper published in 1979 using "Sexually Transmitted Enteric Diseases" as the title of the article clearly stated that "The investigation of their water supply has failed to show faecal contamination. Instead, certain types of sexual activities such as anilingus and fellatio of a faecally contaminated penis provide an excellent mechanism to spread these diseases by faecal-oral contamination"[18].

Although STEIs can occur in heterosexual individuals, it is more closely linked to MSM than other populations. The patient with STEI may present with not only proctitis symptoms such as anorectal pain, burning, discharging or tenesmus but also enteritis symptoms like diarrhoea, abdominal pain, bloating and cramping. Shigella, campylobacter species, giardiasis and entamoeba histolytica have been reported in MSM who presented with enteritis[19,20]. Salmonella species are also thought to be spread by the practice of anilingus and fellatio after anal intercourse, however, the gastric acid barrier protects most individuals from infection after sexual contact[20].

Shigella flexneri is one of STEIs among MSM. In England, surveillance suggested that an intensification of the shigellosis epidemic was associated with sexual transmission in MSM in 2014. Sexual transmission between MSM might have accounted for 97%, 89% and 43% of non-travel associated Shigella flexneri 3a, 2a and S. sonnie respectively.[21] It is similar to previous national outbreaks occurring in MSM between 2009 and 2011.[21] Most of these were white, UK-born MSM, many were HIV-positive, having a dense sexual networks and high numbers of sexual partners. This outbreak was associated with low awareness about the risk of STEI

and chemsex.[21] Moreover, another study identified a recently emerged lineage of S flexneri 3a that had spread intercontinentally in less than 20 years throughout regions traditionally at low risk for shigellosis via sexual transmission in MSM and this lineage had acquired multiple antimicrobial resistance especially azithromycin.[22]

Another Canadian report reviewed all reported cases of shigellosis, amoebiasis, and giardiasis in British Columbia for the period 2003 to 2012 and found a higher male to female ratio of 1.5:1 and 2.6:1 shigellosis and amoebiasis respectively.[23] Overall males were at greater risks of acquiring shigellosis compared to females (RR 1.6, CI 1.4 – 1.8).[23] Additionally, adult males aged 20 to 59 years as compared to all other age-sex group were significantly more likely than females to have shigellosis (RR1.9 CI 1.7-2.4).[23] A similar phenomenon was identified in amoebiasis, in which males were also at higher risks than females.[23] The authors concluded after analysis that sexual transmission of enteric infections, particularly shigellosis and amoebiasis, might be occurring in MSM in British Columbia.[23]

STEI is not far away but has actually happened in Hong Kong recently. If you have a good memory, you may remember that the Centre for Health Protection (CHP), Department of Health (DH), has issued a letter to doctors in February 2017 drawing our attention to an unusually increased number of hepatitis A virus (HAV) infection among MSM because of a small outbreak among HIV-positive MSM. Basically, the annual cases of HAV were zero to 2 per year from 2006 to 2015 while there was an sudden increase to zero to three cases per month since August 2016.[24] Epidemiological investigations so far had not identified any common food or source. Together with genetically distinguishable groups of these HAV-infected MSM, it was suggested that male person-to-person sexual transmission might have accounted for this outbreak. This was an STEI outbreak in Hong Kong. Similar outbreaks had happened in Europe and America involving over 15 countries and more than 1,800 cases identified prompting the WHO to issue a "Disease outbreak news" on her website on 7 June 2017.[25] Taiwan was also involved in a Hepatitis A infection outbreak in June 2015 to August 2016. Acute hepatitis A drastically increased from an average 113 cases during 2010 to 2014 to 1,133 in 2016.[26] Analysis found there was a significantly high prevalence of MSM, HIV-infected and recent syphilis co-infections with this acute hepatitis A during the outbreak period.[27]

Sexual transmission of hepatitis A in MSM has been well-known for 30 years[28] Nevertheless, it has been neglected until recent outbreaks worldwide. The Scientific Committee on AIDS and STI and Scientific Committee on Vaccine Preventable Diseases from CHP issued a statement in June 2017 stating that MSM is at risk of hepatitis A and vaccination is an appropriate measure contributing to the control of the outbreak.[29]

STEI is not a new entity. It can spread rapidly and internationally within highly connected MSM populations and are often associated with antimicrobial resistance (AMR). The infections are commonly clustered in high-risk populations such as MSM and HIV-infected who are more likely to engage in diverse sexual practices, chemsex and multiple sexual partners[30], together with increasing AMR, it is a potential public health challenge and warrants further attention. As a clinician interested in STI, we should widen our horizon not only in the diagnosis of enteric infections, but also in the investigation, treatment and prevention of STEIs.

UNAVAILABILITY OF MEDICATIONS

It is difficult to imagine that there is a lack of medication supply in Hong Kong, a modern and cosmopolitan city. The unfortunate reality is that some of the second-line treatments for common STIs are not available in Hong Kong. For example, spectinomycin, which is the second-line treatment for NG infection, is not available although it is registered in Hong Kong. So what will happen to a patient with history of cephalosporin allergy suffering from NG infection? Which medication should we use in the situation of high macrolide resistance if spectinomycin is not available? Another example is MG infection. Owing to the high macrolide and quinolone resistance, pristinamycin is one of the alternative options. Nonetheless, it is also not available and not even registered in Hong Kong. It is not easy for individual colleagues to source the unregistered medications but also difficult for public and private hospitals and clinics. The unavailability of medications especially second-line STI treatment definitely poses a great challenge on STI management.

PARTNER NOTIFICATION

Partner notification and epidemiological treatment are nothing new and everyone knows that it is an important strategy in the management of STIs to prevent recurrence or "Ping-Pong" transmission. However, there are a lot of limitations on partner notification in Hong Kong. First of all, it is totally voluntary. While respecting individual choice, voluntary partner notification outs high demand for special counselling skills and patient-encounter time to persuade an index patient to go for partner notification. This poses particular manpower stress especially for those colleagues practising solely. There is lack of training and support especially for family physicians who may frequently encounter STI patients. Secondly it is a hurdle to provide investigations and epidemiological treatments to the partners of the index patients unless their partners are willing to come to the clinics. Finally, besides patient referral and provider referral, some states in the United States may adopt Expedited Partner Therapy (EPT). It is a clinical practice of treating the sex partners of patients diagnosed with chlamydia or gonorrhoea by providing prescriptions or medications to the patient to take to his/her partner without the health care provider first examining the partner[31], as supported by a set of clear guidelines issued by US CDC.[32] EPT seems more flexible and convenient. However, its legality and ethical basis remain controversial in Hong Kong.

ENDLESS CHALLENGES

Non-adherence to treatment guidelines for antibiotics used is another challenge in the management of STIs because it may enhance the spread of STIs indirectly and probably induce or worsen the situation of antibiotic

resistance. A recent study from Mainland showed that around 62.2% of physicians were not adherent to the regimens for treatment of uncomplicated gonorrhoea recommended by the National Sexually Transmitted Diseases (STD) Treatment Guidelines.[33]

Safer sex promotion is really an endless challenge in STIs especially among teenagers and young adults. According to the sexual behaviour survey from the report of Youth Sexuality Study 2011 by the Family Planning Association of Hong Kong, the proportion of secondary school students in Form 3 to 7 with experience of sexual intercourse had used condoms in the past six months before enumeration by sex in 2011 were 21.5% and 45.4% only in males and females respectively.[34] Therefore, more ongoing efforts should be invested on promotion of safer sex.

CONCLUSIONS

Challenges of STIs never end and are often new. Burden of disease, antimicrobial resistance, STEIs, unavailability of medications, partner notification and epidemiological treatment, safer sex promotion and clinical practice are all essential and important hurdles to leap over before reaching the goal or targets set by the WHO. Overall, this paper aims to enhance the understanding of the major challenges faced in this field. It is important to acknowledge that the STI control strategies that rely on reducing sexual risk practices at a population level will not work well because, on their own, they produce a relatively modest effect on STI prevalence.[35] There is no single measure that will effectively control all STIs at a population level. It requires co-operation of multi-parties, including the government, non-government organisations(NGO), frontline medical and healthcare workers, psychologists, teachers, social workers and even parents, to work together to combat the present and evolving challenges in STIs.

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Tinea Capitis in Children

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Tinea capitis is a common superficial fungal infection in the paediatrics population. It is usually caused by *Trichophyton* and *Microsporum* species[1]. Patients with tinea capitis are usually identified with single or multiple annular patches with scaling, patchy alopecia, and follicular black dots from broken hair. In severe cases a kerion, which is a boggy inflamed erythematous plaque or abscess with minute pustules and scarring alopecia, is formed.

CASE PRESENTATION

A girl of 5 years of age with otherwise good past health was referred to us for persistent scalp abscesses. She was noted to have patchy hair loss over the occipital area for 3 months, and was seen by her family doctor. She was treated as eczema and put on topical corticosteroids. Her parents reported increase in hair loss over the area. On physical examination, there was a 6 cm x7 cm patch of alopecia over the occipital area, with an indurated boggy erythematous plaque with multiple tiny pustules within. The lesion was non-fluctuant and no pus was expressed. There were also multiple small alopecia patches of 1 cm diameter in the parietal and frontal areas with mild scaling. Furthermore, palpable bilateral occipital lymph nodes were also found. On further questioning the patient has been playing with a cat which they bought recently before the onset.

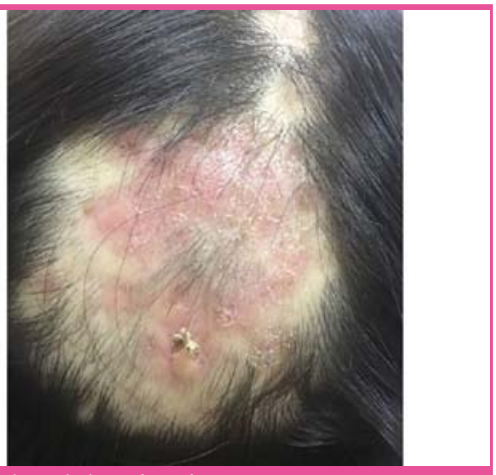

Fig. 1a. Clinical photo from first presentation

A Wood's lamp was used and showed classical apple green fluorescence over the area and crusts.

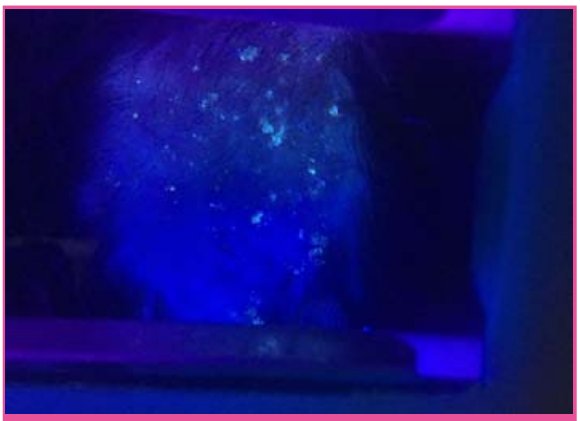

Fig. 1b. A diagnosis of kerion is made based on all the clinical findings. Skin scrapping later revealed Microsporum canis, confirming our suspicion. The patient was put on oral griseofulvin.

After 8 weeks of treatment, there was partial regrowth of hair and reduced inflammation with no more visible pustules. The patient was switched to terbinafine.

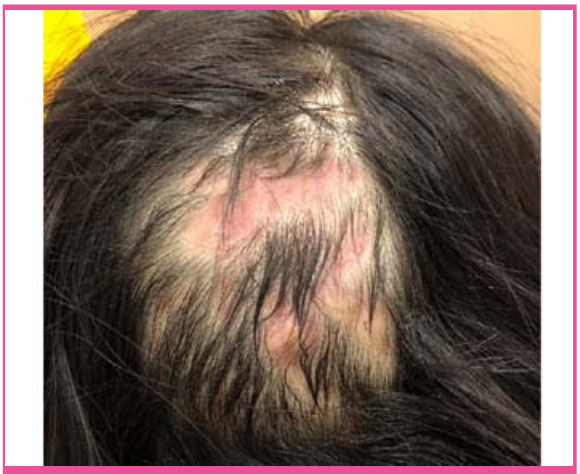

Fig. 1c. Clinical photo after 8 weeks of griseofulvin

DISCUSSION

Kerion is a condition characterised by a boggy inflammatory plaque with crusting and minute pustules formation and is often accompanied with cervical lymphadenopathy. It is a form of severe manifestation of fungal infection of the scalp with

intense inflammatory reaction due to hypersensitivity to the dermatophytic infection. Persistence of kerion might lead to scarring alopecia[2]. It is a severe form of dermatophytic infection of the scalp, tinea capitis.

Tinea capitis is most common in the paediatric population. Diagnosis is made through detailed history taking, physical examination, trichoscopy, the use of Wood's lamp and microbiological tests.

It is a dermatophytic infection which can be anthropophilic (human), zoophilic (animal) and geophilic (soil). The most common causative agents are the *Trichophyton* and the *Microsporum* genum. Aetiological agents differ with geographical locations and have evolved through time, especially in Mainland China, where there is a shift from anthroponoses to zooneses. Pets have become the most likely source of infection in urbanised cities, whereas human to human transmission is more commonly found in less developed areas[3]. In particular, *M. canis* and *T. violaceum* are the most prevalent causes in China, Australia, Europe and Russia[4,5] and *T. tonsurans* is most common in the United States and the United Kingdom.[6,7] The cause of the predominance of tinea capitis in the paediatric populations are not well known. It is proposed that the post-pubertal saturated lipids in the sebum has fungistatic properties that may inhibit infection with dermatophytes[8,9].

CLINICAL PRESENTATION

Patients usually present with hair loss in a form of scaly alopecia or patchy alopecia with black dots. These presentations give certain hints of the underlying causative agent. For instance ectothrix infection (ex. *Microsporum canis*) usually presents with scaly alopecia patches enlarging centrifugally over weeks and months, whereas endothrix infections (ex. *Trichophyton tonsurans*) typically causes an increase in hair fragility with broken hair tips resulting in black dots at follicular orifices. Favus is another unique presentation with cup-shaped crusts called "scutula", which is mostly caused by *T. schoenleinii*[10].

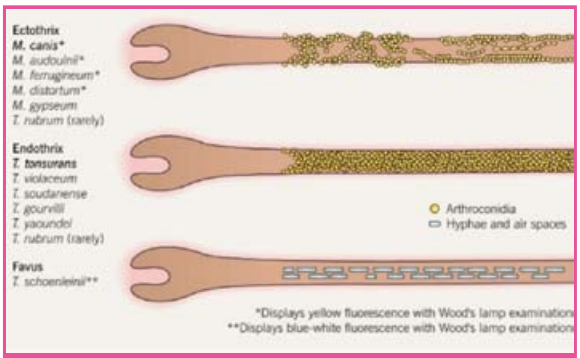

Fig. 2. : The three patterns of hair invasion in tinea capitis and the corresponding dermatophytes

Reproduced from Jean L. Bolognia MD , Dermatology Essentials, 1st Edition, chapter-2,figure-2-2

Dermoscopy or trichoscopy can aid in diagnosis of other causes of alopecia especially alopecia areata. Tinea capitis typically shows broken and dystrophic hairs. In addition, corkscrew hairs, comma hairs and black dots were observed respectively[11,12]. In contrast, yellow dots, exclamation mark hairs and vellus hair were observed in patients with alopecia areata.

Wood's lamp is often employed to assist the diagnosis. It emits wavelength at 320 nm to 450 nm and highlights different diseases with its characteristic patterns. In tinea capitis, due to ectothrix infection by *Microsporum canis*, a green-yellow fluorescence can be seen[13]. In favus, which is caused by *Trichophyton schoenleninii*, a faint blue fluorescence is observed. No fluorescence will be seen in endothrix infections.

The major differentials to tinea capitis include seborrheic dermatitis, psoriasis and alopecia areata.

Table 1: The common differential diagnosis for tinea capitis

	Tinea capitis	Seborrhoeic dermatitis	Psoriasis	Alopecia areata
Scaling	Present	Diffuse	Coarse scaling	-
Alopecia	Present, sometimes with black dots	-	-	Alopecia with black dots, exclamation hair
Pustules	+/-	-	-	-
Areas of involvement	Patchy to diffuse. Less well demarcated	Other areas of involvement including eyebrows, nasolabial folds, intertriginous areas	Other skin and nail involvements	Well demarcated patches of alopecia, mostly annular and sometimes diffuse with loss of hair in other body parts such as eyebrow
Pruritis	+	+	-	-

In patients presenting with kerion, it has to be distinguished from other causes of suppurative folliculitis which include bacterial folliculitis, folliculitis decalvans, and dissecting cellulitis. This can be done with a Gram stain or culture to rule out bacterial causes while looking for loss of follicular orifices and tufted hair in folliculitis decalvans. Of note, folliculitis decalvans occurs mostly in the adult population in contrast to tinea capitis, and dissecting cellulitis mostly in the young black population and not in our locality.

TREATMENT

Treatment involves commencement of oral antifungal agents while relying upon clinical suspicion of the causative agent. Topical antifungal treatment is not effective[14]. Griseofulvin is the most commonly prescribed medication which is most cost-effective and accessible. Terbinafine is another commonly used agent with a good safety profile and tolerance. Griseofulvin is more effective against *Microsporum* than *Trichophyton* infections[15]. The mycological cure rate after 6 weeks and 8 weeks of treatment was quoted to be a weighted average of 51.5% and 67.2% respectively. Terbinafine is quoted to be at least as effective as griseofulvin at 8 weeks of treatment; some data have suggested that it is of greater efficacy given the same treatment duration[16]. In one study there was an 88% mycological cure rate at week 12 compared with 91% in the griseofulvin

group[17]. Itraconazole and fluconazole can also be used as an alternative. Itraconazole has a weighted average mycological cure rate of the weighted average of 79% at 12 weeks[18]. It is shown that fluconazole was equally effective for both dermatophytes with itraconazole being more effective for *Trichophyton* than *Microsporum* species[19, 20].

These medications are generally well tolerated. Common side effects include gastrointestinal disturbances, liver derangements and cutaneous eruptions. The use of terbinafine in children under the age of 4 is not recommended. For itraconazole and fluconazole, they have additional potential drug-drug interaction, severe hypersensitivity reactions or QT prolongation.

Table 2: Recommended treatment durations and dosages for tinea capitis[21]

Drug	Dosage	Duration
Fluconazole	6 mg/kg/day	3 and 6 weeks
Griseofulvin-microsized	20 - 25 mg/kg/day	≥6 weeks; continue until clinically clear
Itraconazole	5 mg/kg/day	Trichophyton spp.: 2 - 4 weeks Microsporum spp.: 4 - 6 weeks
Terbinafine tablets - 250 mg	4-6 mg/kg/day 10-20 kg: 62.5 mg 20-40 kg: 125 mg >40 kg: 250 mg	T. tonsurans: 2 - 6 weeks M. canis: 8 - 12 weeks
Terbinafine granules - 125 mg and 187.5 mg	<25 kg: 125 mg 25-35 kg: 187.5 mg >35 kg: 250 mg	FDA approved for children ≥ 4 years 6 week duration for all species

Reproduced from Committee on Infectious Diseases, American Academy of Paediatrics Red Book: 2015 report of the Committee on Infectious Diseases / Committee on Infectious Diseases, American Academy of Paediatrics

PREVENTION AND TREATMENT FOR CLOSE CONTACTS

To prevent reinfection and spread of the disease, close contact of patients should be examined for signs and symptoms of tinea capitis and treated accordingly.[22] Use of antifungal shampoo by household members is advised. Patients should be advised against use of hair tools and headwear. Other personal belongings such as clothing, beddings and furniture should be washed thoroughly. In case of zoophilic dermatophytic infection, patients should be enquired about contact with animals and pets, in particular in patients with *Microsporum* canis infection, where it is most common in cats and dogs, with cats being the most important reservoir hosts[23]. Proper decontamination of furniture and belongings of the pet with suitable disinfectants should be performed and the suspected animal source should be evaluated by a veterinarian.

FOLLOW-UP

Treatment is usually effective with complete clearance of lesions and regrowth of hair. Patients should have a follow up assessment for signs of ongoing infection or re-infection, which include persistent scaling and erythema. A repeated fungal culture should be performed for patients with repeated infection to document clearance after treatment. For refractory cases, patients should also be enquired about their compliance to treatment and possibility of reinfection from contaminated objects or infected individuals or pets.

CONCLUSION

Overall, delayed diagnosis and treatment can lead to scarring alopecia, which is very disfiguring especially in a growing child. Public awareness and family physicians' input in the prevention and early referral for these patients are crucial.

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Update on the Management of Eczema

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This article has been selected by the Editorial Board of the Hong Kong Medical Diary for participants in the CME programme of the Medical Council of Hong Kong (MCHK) to complete the following self-assessment questions in order to be awarded 1 CME credit under the programme upon returning the completed answer sheet to the Federation Secretariat on or before 30 November 2018.

INTRODUCTION

Management of eczema constitutes the main core of work in outpatient Dermatology clinics and at times in the inpatient wards housing patients with severe skin conditions. The approach to the management of eczema has not changed much over the past few years though there are some newer medications for management of severe and difficult-to-treat eczema. There have been a few updated guidelines published by developed countries available for our reference.[1,2] These guidelines will all help us address some of the more difficult questions asked by our assumingly knowledgeable eczema patients nowadays.

MAKING THE RIGHT DIAGNOSIS

The very first consideration in the management of eczema is to have a correct diagnosis. Very often, we can encounter patients misdiagnosed to have eczema self-managed for many years without much progress while in fact they are suffering from tinea incognito or other cutaneous papulosquamous eruptions. Hence, it is important for us to review the basics, i.e. history and physical examination, and to consider common differential diagnoses of eczema (Table 1), namely: psoriasis, superficial fungal infection as well as other rare but important differential diagnoses such as Mycosis Fungoides, Bowen's disease, Extramammary Paget disease. Referral to a specialist in Dermatology for further investigations (such as skin scraping for mycology study or skin biopsy) may be necessary at some point in the management of patients with chronic recurrent eczematoid skin rash.

Table 1: Differential diagnoses of Eczema (other papulosquamous dermatoses)

1.	Psoriasis
2.	Superficial fungal infection (e.g. Tinea infection)
3.	Eczematous drug eruptions
4.	Pityriasis rosea
5.	Subacute lupus erythematosus
6.	Lichenoid dermatitis and lichen planus
7.	Chronic superficial dermatitis
8.	Mycosis fungoides (prelymphomatous eruption)
9.	Bowen's disease
10.	Extramammary Paget disease

Table 2: Classification of Eczema

Exogenous eczema	Endogenous eczema
1. Nrritant contact eczema (Nrritant contact dermatitis)	1. Seborrheic eczema
2. Bllergic contact eczema (Bllergic contact dermatitis)	2. Stasis eczema
3. Photoallergic contact eczema	3. Atopic eczema
4. Dermatophytide (Id reaction)	4. Asteatotic eczema (xerotic eczema, Eczema craquele, Winter eczema)
5. Infective eczema (Microbial eczema)	5. Discoid eczema (nummular eczema)
	6. Dyshydrotic eczema (vesicular eczema, pompholyx)
	7. Unclassified papular eczema

CLASSIFICATION OF ECZEMA

Even after the diagnosis of eczema has been ascertained, the next crucial step is to provide a more precise diagnosis of the type of eczema. As eczema is a heterogeneous group of skin diseases that requires further delineation, we should be knowledgeable about the classification of eczema (Table 2) so that we can manage our patients accordingly. Though there is no universally agreed classification of eczema, we can have at least one of our own that is easy to explain to our patients, helping to guide our management and to assess prognosis. My own classification is simple: Two types of eczema (Ref 4): Exogenous and endogenous eczema though the two types may overlap in certain circumstances. Exogenous eczema includes types of eczema in which the external factors play a major role in the initiation, propagation and complication of the disease, such as Bllergic and Nrritant contact dermatitis. Removal of these culprit factors may significantly contribute to the management of the eczema and in certain patients may bring upon a cure for the patients. Endogenous eczema includes those eczema in which the body constitutional factors such as the gene make-up for immunological response, the skin barrier, or other unknown body factors play a significant role in the causation and propagation of eczema. The cure for endogenous eczema may not be possible in the near future. Nevertheless, we can offer symptomatic treatment to minimize disruption to our patients' daily living by the disease. Extensive psychological counselling and support may be necessary for patients so that they understand the correct approach to the disease and so that they can maintain good rapport with the healer(s) for long-term ongoing treatment. A team approach with joint interdisciplinary forces (involving family physicians,

internal medicine physicians, paediatricians, allergists, immunologists, psychologists and dermatologists) is desirable for offering holistic and sound management. Endogenous eczema includes: seborrhoeic eczema, stasis eczema, atopic eczema, asteatotic eczema, discoid eczema, dyshydrotic eczema, lichen simplex chronicus and unclassified papular eczema.

UPDATED GUIDELINES ON ECZEMA

When patients are diagnosed to have eczema, many will think that the disease is incurable and the patient will be in a life-long miserable condition. It is therefore important to point out that only a few types of endogenous eczema may have a prolonged protracted course with on and off exacerbations; many eczema patients do live normally though eczema may be a nuisance affecting their social life. Professionals should regularly get updated on the guidelines on endogenous eczema (especially atopic eczema), as the updated guidelines will help them address patients' questions and misunderstanding. Newer treatments such as Dupilumab and JAK inhibitors do not serve as a cure for the disease but they offer additional treatment options to tackle difficult and severe eczema. I shall recommend the most updated guidelines "Consensus-based European guidelines for treatment of atopic eczema (atopic dermatitis) in adults and children" published this year in Journal of European Academy of Dermatology & Venereology (JEADV). [1] The guidelines give a very thorough and comprehensive review covering many of the updated evidence for atopic eczema. There may be some minor differences in recommendation between the North American[2] and European guidelines[1] but the basic principles of atopic eczema management are the same.

The updated European guidelines constitute two parts.[1] The first part of the guideline covers methods, patient perspective, general measures, avoidance strategies, basic emollient treatment and bathing, dietary intervention, topical steroid and non-steroidal anti-inflammatory therapy, phototherapy and anti-pruritic therapy. The second part covers antimicrobial therapy, systemic treatment, allergen-specific immunotherapy, complementary medicine, psychosomatic counselling and educational interventions.

General measures and avoidance strategies would be included in counselling and the first encounter of patients with nearly all types of eczema. For atopic eczema, there is enough evidence for the steroid-sparing effects of emollient for the recommendation of routine use of emollient. Emollient should be used regularly and prescribed in adequate amount in order to attain the benefit of steroid-sparing effects. Topical corticosteroids are effective; patient's fear of side effects of steroid should be acknowledged and adequately addressed to avoid under-treatment. Proactive therapy with twice weekly application of tacrolimus ointment has shown significant reduction of relapses of eczema in atopic eczema studies.

There is updated information in the newest guidelines[1] that will clarify some of the controversial issues of the past. I think professionals should note and recommend these evidence-based facts when asked by patients. Oral application of unsaturated fatty acid (essential fatty acids) is not recommended for treatment of atopic eczema though topical application of unsaturated fatty acids using as emollient may be tried in selected patients. Topical use of crude plant extracts is not recommended in atopic eczema and the use of Chinese herbs and use of acupuncture or acupressure are not recommended for treatment of atopic eczema in the guidelines. The use of homeopathy, massage/aroma therapy, autologous blood therapy and salt bath are not recommended in the guidelines.

PATIENT EDUCATION

The importance of educational interventions for atopic eczema is recommended in the guidelines[3]. Most psychological training programmes include relaxation techniques, habit training for social competence and communication as well as coping behaviour and improvement of self-control with regard to disrupting the itch-scratch cycle. Educational interventions for atopic eczema are not simply carried out in the form of passing out leaflets in the waiting room. It involves the transfer of skills from a trained healthcare professional to the patient or their parents. This aspect of support to our patients is currently lacking in our locality as a result of the shortage of relevant specialists, limited resource and the lack of time for patients, parents and healthcare professionals.

NEW DRUGS FOR ECZEMA

The updated guidelines[1] have included some newer medications for management of severe atopic eczema. The systemic medications include: short course of systemic steroid (not over one week); Cyclosporine A, Dupilumab (only one biologics recommended at this juncture), Methotrexate, Azathioprine, and Mycophenolate mofetil. Alitretinoin is a retinoid binding both retinoid and rexinoid receptors for its anti-inflammatory effect but it is only licensed in some European countries for the management of chronic hand eczema. Apremilast is a small molecule phosphodiesterase (PDE) 4 inhibitor that has been approved for psoriasis but the drug development programme of Apremilast for atopic eczema has been stopped. Tofacitinib is the oral JAK inhibitor tested for refractory atopic eczema but there is not enough evidence to support use of it in atopic eczema. Use of intravenous immunoglobulin in atopic eczema is not recommended in the guidelines.

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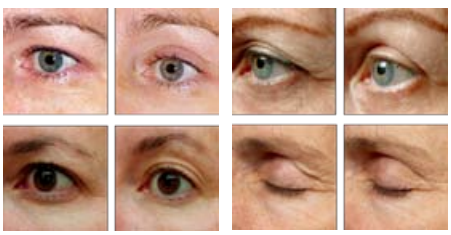

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[1]THE Aesthetic Guide, p.56, November/December 2017
[2]Data on file, Solta Medical Inc. Data refer to Thermage product range as a whole.

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MCHK CME Programme Self-assessment Questions

Please read the article entitled "Update on the Management of Eczema" by Dr Kuen-kong LO and complete the following self-assessment questions. Participants in the MCHK CME Programme will be awarded CME credit under the Programme for returning completed answer sheets via fax (2865 0345) or by mail to the Federation Secretariat on or before 30 November 2018 Answers to questions will be provided in the next issue of The Hong Kong Medical Diary.

Questions 1-10: Please answer T (true) or F (false)

1. The management of eczema has undergone major changes in the past few years and new medications can cure the disease in the near future .
2. No new medications are noted for the management of severe eczema in the past few years.
3. Skin biopsy is a routine investigation for acute eczema.
4. Skin malignancy is not a differential diagnosis of eczema.
5. Tinea incognito is one of the differential diagnoses of eczema.
6. Eczema craquele is one type of exogenous eczema.
7. Allergic contact dermatitis in general carries a better prognosis than atopic eczema.
8. International guidelines for the management of atopic eczema will help professionals to address questions from patients about some controversial issues of eczema with newest evidence for the management of eczema e.g. supplement of essential fatty acids.
9. New medications for the treatment of eczema is not equivalent to a cure for eczema.
10. Educational interventions for atopic eczema is not recommended in the international guidelines.

ANSWER SHEET FOR NOVEMBER 2018

Please return the completed answer sheet to the Federation Secretariat on or before 30 November 2018 for documentation. 1 CME point will be awarded for answering the MCHK CME programme (for non-specialists) self-assessment questions.

Update on the Management of Eczema

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1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐

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Answers to October 2018 Issue

Herb Safety in Integrative Medicine

1. F **2.** T **3.** T **4.** F **5.** F **6.** T **7.** F **8.** T **9.** T **10.** F

Dermatology Quiz

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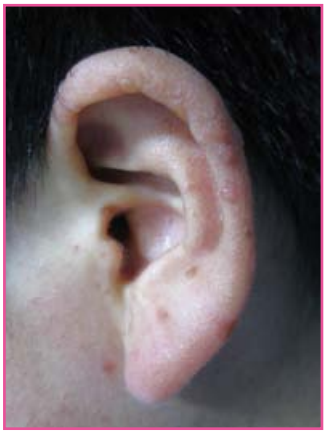

This 64-year-old gentleman attended the Accident and Emergency Department because of inability to control his left facial muscles, drooping of the left eyelid and pain over the left pinna. Physical examination revealed lower motor neuron type facial nerve palsy on his left side and multiple vesicular rash on the left pinna.

Questions

1. What is the diagnosis of this gentleman?
2. What is the cause of the skin lesion?
3. How do you manage this gentleman?

(See P.36 for answers)

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Date	Topics	Speakers
29 Nov, 2018	Cataract and Cataract Surgery Update	Dr. Leonard Yuen *FHKAM (Ophthalmology)*
	Refractive Errors, Presbyopia and Refractive Surgeries	Dr. Derek Chung *FHKAM (Ophthalmology)*
6 Dec, 2018	Red Eyes, Ocular Trauma and Emergencies	Dr. Kenneth Ng *FHKAM (Ophthalmology)*
	Corneal and External Eye Diseases	Dr. Michelle Fan *FHKAM (Ophthalmology)*
13 Dec, 2018	Common Ophthalmic Eye Drops & New Drug Delivery Method	Dr. Ho Wing Lau *FHKAM (Ophthalmology)*
	Glaucoma and Glaucoma Surgery Update	Dr. Nancy Yuen *FHKAM (Ophthalmology)*
20 Dec, 2018	Squint	Dr. Shaheeda Mohamed *FHKAM (Ophthalmology)*
	Pediatric Ophthalmology	Dr. Jason Yam *FHKAM (Ophthalmology)*
3 Jan, 2019	Retinal Detachment and Diabetic Retinopathy	Dr. Lawrence Lu *FHKAM (Ophthalmology)*
	Common Macular Diseases and Treatment Update	Dr. Jennifer Mok *FHKAM (Ophthalmology)*
10 Jan, 2019	Functional and Cosmetic Orbital & Oculoplastic Surgery	Dr. Hunter Yuen *FHKAM (Ophthalmology)*
	Neuro-ophthalmology	Dr. Ho Wing Lau *FHKAM (Ophthalmology)*

Date : 29 November, 6, 13, 20 December, 2018 and 3, 10 January 2019 (Thursday, skip 27 December 2018)
Time : 7:00 pm – 8:30 pm
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Vitiligo

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Vitiligo is a worldwide disease. It has an equal sex ratio with a prevalence of 0.5 to 2.5% but a highest of > 8.8% in some parts of India.[1] This may reflect a heightened awareness to vitiligo in some countries where vitiligo is a stigmatised disease. Vitiligo affects all ages but about half of these patients experience onset before 20 years old.[2] A higher association with autoimmune disorders than healthy control has been noted. These include autoimmune thyroiditis, diabetes mellitus, pernicious anaemia, Addison's disease, systemic lupus erythematosus, and autoimmune gastritis. In an Italian study of 175 patients with non-segmental vitiligo[3], 41.8% had circulating autoantibodies including anti-thyroperoxidase antibody (25.6%), anti-thyroglobulin antibody (23.4%), antinuclear antibodies (16.8%), and anti-gastric parietal cell antibody (7.8%).

CLINICAL CLASSIFICATION AND DIAGNOSIS

The aetiopathogenesis of vitiligo is complex and not fully elucidated. Different classifications have been proposed. Table 1 shows the revised classification made by the Vitiligo Global Issue Consensus Conference Panelists in 2012[4]. This international consensus report recommended 'vitiligo' as the umbrella term for all non-segmental forms of vitiligo. As a transition, the terms 'vitiligo' and 'Non-segmental vitiligo' (NSV) can be used. In this discussion, the term NSV is retained. The classification guides clinicians to predict the course and outcome, and to decide on treatment options.

Table 1. Classification of vitiligo

Type of vitiligo	Subtype	Explanation
Vitiligo*	Acrofacial	Involve face, hands and feet
	Mucosal (> 1 mucosal site)	Symmetrical lesions more than one region.
	Generalised	Symmetrical lesions more than two regions, mainly face, hands, trauma-prone areas.
	Universal	More than 80% of body surface area involved.
	Mixed	Coexistence of segmental vitiligo and vitiligo.
	Rare variants	
Segmental vitiligo	Unisegmental	Unilateral
	Bisegmental	Two segmental lesions, unilateral or bilateral.
	Plurisegmental	Multiple segmental lesions, unilateral or bilateral.
Undetermined/ unclassified vitiligo	Focal	Isolated lesions that do not have a segmental distribution. Not evolve into NSV for at least 2 years.
	Mucosal	Only one site involved. Oral or genital.

**'Vitiligo' is recommended as the umbrella term for all non-segmental forms of vitiligo. For the time being, 'vitiligo' and 'Non-segmental vitiligo' (NSV) are interchangeable.[4]*

A classical vitiligenous lesion is a sharply defined depigmented "milk white" macule of sizes ranging from a few millimetres to centimetres. Lesions extend centrifugally and new lesions may appear but at an unpredictable rate.

Generalised vitiligo, shows symmetry with predilection for peri-orificial areas, joints and acral sites. Areas that are usually hyperpigmented such as the nipples, axillae, sacral, inguinal and anogenital regions are also more frequently affected. Segmental vitiligo (SV) (Fig.1) accounts for about 5-10% of all cases of vitiligo and shows onset at an early age. Lesions are unilateral, stop abruptly at the midline, and present as macule(s) over a body segment, or rarely over multiple body segments. SV rapidly deteriorates in the first or second year then becomes quiescent. Follicular pigmentation can be seen within the depigmented area of NSV but leukotrichia is frequent in SV.

Diagnosis of vitiligo is made clinically, assisted by Wood's lamp (emitting long ultraviolet A) which highlights depigmented areas. Examination with a Wood's lamp helps to differentiate vitiligo from other hypo-/de-pigmentation conditions, and also highlights depigmented lesions on mucosal and palmar lesions. Other important features are Kobner phenomenon, inflammatory vitiligo, confetti-like depigmentation, trichrome vitiligo, and hypopigmented lesions with fluffy edges, all of which indicate active disease. Autoimmune disorders should be looked for and checked with appropriate tests given the increased risk of such disorders in patients with vitiligo.

Differential diagnoses of vitiligo include pityriasis alba, pityriasis versicolor, post-inflammatory or post-traumatic hypopigmentation, piebaldism, Waardenburg syndrome, ash leaf macule of tuberous sclerosis, naevus depigmentosus, naevus anaemicus, lichen sclerosis, hypopigmented mycosis fungoides, and indeterminate or tuberculoid leprosy.

Fig. 1: Segmental vitiligo showing unilateral, sharply defined depigmented macule stops abruptly at the midline. Children are more frequently affected.

SCORING FOR VITILIGO

The following are some commonly used instruments to assess vitiligo.

VIDA (Vitiligo Disease Activity)

This measures vitiligo activity based on patient's history (Table 2) and is subjective. This should be combined with other tools such as the VASI, VEFT and VETI for comprehensive assessment.

Table 2: VIDA Score

Disease activity	VIDA score
Active in the past 6 weeks	+4
Active in the past 3 weeks	+3
Active in the past 6 months	+2
Active in the past 1 year	+1
Stable in the past 1 year	0
Stable for at least 1 year and spontaneous repigmentation	-1

VASI (Vitiligo Area Severity Index, Vitiligo Area Scoring Index)[5]

VASI, analogous to PASI score, counts all body regions in Hand Units and Residual Depigmentation for the extent of depigmentation. The total VASI score is calculated by the formula:

$$\text{VASI Score} = \sum_{\text{(All body sites)}} (\text{Hand Units}) \times (\text{Residual Depigmentation})$$

A Hand Unit refers to the areas on palm plus volar surface of digits, which is approximately 1% of the total body surface area. The body is divided into six regions: face/neck, hands, upper extremities (excluding hands), trunk, lower extremities (excluding feet), and feet. Residual Depigmentation is expressed as: 0%, 10%, 25%, 50%, 75%, 90%, or 100%. At 100%, no pigment is present; at 90%, specks of pigment are present; at 75%, depigmented area exceeds pigmented area; at 50%, depigmented and pigmented areas are equal; at 25%, pigmented area exceeds depigmented area; at 10%, only specks of depigmentation are present.

VETF (Vitiligo European Task Force)[6]

Incorporates extent, stage and disease progression (Table 3). These include 5 body sites: Head and neck (0-9%), Trunk (0-36%), Arms (0-18%) and Legs (0-36%) and hands and feet (to be staged separately) Extent is based on the rule of nines. Staging is based on cutaneous and hair pigmentation in vitiligo lesions and divided into 3 stages. Spreading requires comparing lesional limits by inspection using natural light and Wood's lamp. VETF is more complicated than other systems.

Table 3: VETF Staging/Spreading using Wood's lamp (with magnifying lens)

Stage	Description
0	Normal pigmentation (no depigmentation in area graded)
1	Incomplete pigmentation
2	Complete depigmentation (a few white hairs not change staging)
3	Complete depigmentation with hair whitening < 30%
4	Complete depigmentation with complete hair whitening
Spreading	**Description**
0	Similar limits (no difference between natural light and Wood's lamp)
1	Progressive vitiligo (ongoing subclinical depigmentation)
-1	Regressive vitiligo (ongoing subclinical repigmentation)

VETI (Vitiligo Extent Tensity Index)

This proposes to measure the extent of vitiligo by a numerical score and combines analysis of the tensity (degree of depigmentation) of vitiligo to produce a constant and reproducible number like PASI (Table 4). The maximum VETI score is 55.5[7].

Table 4: VETI System (Grade of tensity)

Grade of tensity (T)	Description
0	Normal skin
1	Hypopigmentation (including trichrome and homogeneous lighter pigmentation)
2	Complete depigmentation with black hair and with perifollicular pigmentation
3	Complete depigmentation with black hair and without perifollicular pigmentation
4	Complete depigmentation with compound of white and black hair with/without perifollicular
5	Complete depigmentation plus significant hair whitening

The formula used for VETI score is $A + 2B + 4C + 4D + 0.1E$, where
A = (% head involvement × T)
B = (% of upper limbs involvement × T)
C = (% of trunk involvement × T)
D = (% lower limbs involvement × T)
E = (% genitalia involvement × T)

These systems are not complete if consideration is not given to the patients' attitude towards the disease and how their daily life is affected. The Dermatology Life Quality Index and Skindex-29 could be added for general psychosocial assessment. The Vitiligo-specific quality-of-life and Vitiligo Impact Scale-22 (VIS-22) are specific tools for vitiligo[8].

PATHOGENESIS

The pathogenesis of vitiligo is complex and involves genetic, autoimmune, and/or intrinsic melanocytic defects as well as environmental triggering factors. Genome-wide linkage analyses have shown approximately 50 genetic loci being involved in melanogenesis, immune regulation, or apoptosis that contribute to vitiligo risk. In Chinese families with generalised vitiligo, susceptibility loci are linked to chromosomes 22q12 and 6p21-p22[9].

Intrinsic melanocyte defects may occur. During melanogenesis, energy is utilised for protein production. Toxic intermediates (e.g. catecholamine) are produced and reactive oxygen species generated. It has been shown that vitiligo patients had a raised level of H_2O_2[10]. The low catalase activity with impaired redox status increases susceptibility to oxidative stress.

Immune processes are involved in melanocyte destruction. The NK cells and dendritic cells of the innate immunity are activated by inflammatory signals consequent to protein misfolding during melanogenesis. The cytotoxic CD8+ T cells of the adaptive immunity target at specific antigens such as gp100, MART1, tyrosinase, and tyrosinase-related proteins 1 and 2. IFN-ɣ recruits melanocyte-specific, autoreactive CD8+ T cells to the skin by inducing chemokine CXCL10 and its receptor CXCR3, which is expressed on these T cells in blood and lesional skin. CD4+ T regulatory cells (Tregs) also play a role, deficiency of which leads to increased risks.

The "Neural hypothesis" was proposed for pathogenesis of SV since its unilateral distribution is like that of a dermatome. It has not gained sufficient evidence[11]. SV may be consequent to somatic mosaicism. A single mutation in an embryonic melanocyte would be passed onto its offspring cells, which migrate from the neural crest in paths independent of cutaneous nerves, resulting in a unilateral distribution of abnormal melanocytes.

Melanocytorrhagy refers to the detachment of melanocyte from the epidermal basal layer. An altered melanocytes' response to friction or rubbing causing detachment from their normal basal layer and their transepidermal elimination. Gauthier et al proposed that an autoimmune activation could be provoked by dendritic cells or memory T cells detecting auto-antigens during melanocytorrhagy[12]. E-cadherin (Ecad) is a cell adhesion molecule important in the formation of adherens junctions. It mediates melanocyte-keratinocyte interactions and melanocyte adhesion to basal epidermis. Absence or altered distribution of Ecad across melanocyte membranes in vitiligo patients precedes clinical lesions[13].

TREATMENT

General measures

Exposure of depigmented areas to UVR increases the risk of sunburn, Kobner phenomenon, solar damage and skin cancer. Sun exposure also tans normal skin and increases its contrast with the depigmented skin. The Hong Kong Observatory has launched a new Ultraviolet (UV) Radiation Information Webpage in August 2018 where UV index is announced and protective measures recommended. (https://www.weather.gov.hk/wxinfo/uvinfo/uvinfo_e.html).

Sun avoidance and photoprotection measures should be adopted. These include shade seeking, broad-brim hat, umbrella, UV proof sunglasses, long sleeves and long trousers. Use sunscreen properly and follow recommendation of the manufacturer. Sun protection factor (SPF) of 30 and Protection grade of UVA (PA) of +++ should be sought. Sunscreen should be applied in an amount of 2 mg/cm2 skin area and be reapplied regularly as recommended. Water-resistant sunscreen should be used upon contact with water.

Medical therapy

Corticosteroids

Topical corticosteroids (TCs) are the mainstay treatment for localised vitiligo. About half of patients affecting < 20% of the body surface area achieved > 75% repigmentation with potent or superpotent TCs. Adverse effects of potent TCs include atrophy, telangiectasia, erythema, folliculitis, hypertrichosis, purpura, skin infection, and eye complications including glaucoma.

To minimise side effects, potent TCs for vitiligo should be limited to a short period of a few weeks. Use low-potency TCs on face and flexural skin[14]. For prolonged use, TCs may alternate with topical calcineurin inhibitors. Discontinue TCs after 2-3 months if no improvement. Avoid intralesional corticosteroids.

Systemic corticosteroids help to arrest rapidly progressive widespread active vitiligo. The regimen can be of daily oral dose, high-dose pulses, and mini-pulses. Kanwar reported successful oral minipulse therapy in vitiligo[15]. El Mofty et al studied 45 patients divided into three groups each receiving NBUVB plus oral minipulse therapy (OMT), OMT alone and NBUVB alone. NBUVB plus OMT therapy gave the best result[16]. Systemic corticosteroids should only be used when other treatments fail because of significant adverse effects.

Topical calcineurin inhibitors (TCIs)

TCIs include tacrolimus and pimecrolimus. They activate tyrosinase and promote melanogenesis. TCIs are comparable to TCs in repigmenting vitiligo but without the side effects of prolonged TCs use. Best results are seen on the face and sun-exposed areas. Although FDA warned on a possible association between TCIs and malignancy, no definite relationship has been shown yet. However, patients on TCIs should avoid exposure to UVR.

A study showed that bi-weekly tacrolimus 0.1% ointment to sites of previous vitiligo reduced the recurrence of depigmentation to 9.7%, compared to 40% with placebo[17]. The efficacy for pimecrolimus were mixed[18,19]. It seems that pimecrolimus works better for the face than for the upper limbs[20].

TCIs can be used alone as maintenance therapy after repigmentation. When TCIs are combined with Excimer laser or NBUVB, repigmentation could be enhanced than by either modality alone.

Calcipotriol

Calcipotriol is a topical vitamin D3 analogue which enhances melanogenesis and melanocyte development via action on specific receptors[21]. It also affects specific T cell activation and inhibits the expression of pro-inflammatory cytokines. Results of calcipotriol monotherapy were conflicting. In one study on 24 adults with localised and generalised vitiligo, a repigmentation rate of only 8.05% was found[22]. Another study on 21 vitiligo patients aged 5 to 17 years showed marked to complete repigmentation in 10 patients. Calcipotriol was well tolerated except for mild irritation in 3 patients. Serum calcium levels remained normal[23]. Another small trial on children aged 3 to 12 years also showed good repigmentation[24]. Based on these studies, calcipotriol appears to be effective for childhood vitiligo.

Calcipotriol can be combined with topical corticosteroid, NB-UVB, PUVA and Excimer laser. Combination treatment appears more effective than either therapy alone. No significant adverse effects have been detected[25].

Phototherapy and laser

Phototherapy refers to the use of light in treating skin diseases. Therapeutic mechanism for vitiligo includes T cell apoptosis, altered cytokine production, stimulation of melanocyte stimulating hormone (MSH), enhancing melanocyte proliferation and melanogenesis. Psoralen-ultraviolet A (PUVA) and Ultraviolet B (UVB) are commonly used. The wavelength ranges of UVA and UVB are 320-400 nm and 290-320 nm respectively. PUVA employs prior administration of

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psoralen which can be topically applied to the lesion or taken orally. The psoralen available in Hong Kong is 8-methoxypsoralen (8-MOP).

PUVA
Topical PUVA is for treating small lesions which are painted with psoralen followed by UVA irradiation 30 minutes later. The initial dose is 0.25 J/cm^2 with gradual dose increments until mild asymptomatic erythema appears. As phototoxicity in the application site is a real risk, periorbital topical PUVA should be avoided.

Oral PUVA involves oral administration of 0.6 mg/kg of 8-MOP 2 hours prior to UVA irradiation. Treatment is given two times weekly with initial dose from 0.5 to 1.0 J/cm^2 depending on the skin phototype. Side effects include phototoxicity, nausea and gastrointestinal upset. Patients should use sunscreens, and wear long sleeved clothing and UV proof glasses during and following treatment to prevent ocular phototoxicity. The treatment is not for children and pregnancy.

The response rate to PUVA is variable. Prolonged treatment is often required. In one report, the overall repigmentation rate is 59.4% with poor response on hands, feet and periorificial areas[26]. Skin cancer is a long-term risk though uncommon. Before accumulating more safety data, the maximum number of UVA treatment sessions should be limited to 300 and not to exceed a cumulative dose of 1000 J/cm^2.

NB-UVB
The NB-UVB has superceded Broad band ultraviolet B (BB-UVB) for its favourable peak emission at 311 nm for skin diseases. Compared with PUVA, NB-UVB does not require psoralen, not contraindicated for use in pregnant or lactating women, and associated with very low risk of skin cancer. It has become the first-line treatment for adults and children ≥6 years of age with generalised vitiligo. Short term adverse effects include pruritus, xerosis, and phototoxicity.

NB-UVB monotherapy is superior to PUVA and BB-UVB for treating vitiligo. Anbar et al studied 150 vitiligo patients (90% NSV, 10% SV) treated with NB-UVB[27]. In the NSV group, 48%, 27% and 25% had marked, moderate and mild repigmentation respectively. However, the effect was only mild for SV.

Siadat et al studied 42 patients receiving NB-UVB or oral minocycline for unstable vitiligo[28]. NB-UVB was statistically more advantageous than oral minocycline. I have treated two patients with periorificial vitiligo. They responded poorly to topical PUVA but responded to NB-UVB with a course of oral doxycycline and low dose prednisolone by 50% repigmentation after 3 and 6 months' treatment. At this juncture, the role of tetracycline in treating vitiligo is not certain.

Targeted light or laser phototherapy (microphototherapy, concentrated phototherapy, focused phototherapy)
These devices deliver NB-UVB at high intensity/energy. Examples are Dualight®, Bioskin® and Lumera®. They are superior than conventional UVB machines in that they deliver radiation accurately to the lesional areas. The high intensity delivery reduces treatment time and sessions. They are also easier to administer to patients so an advantage for treating children.

Targeted UVB phototherapy
An early study in 8 patients receiving Bioskin® (vs a control group) showed high efficacy for SV[29]. The largest study involved 734 vitiligo (SV and SV) patients treated once monthly for 12 months. Almost 70% of patients achieved > 75% pigmentation[30]. No significant adverse effects were noted.

NB-UVB microphototherapy could be combined with TCs, TCIs and Calcipotriol. A study on 458 vitiligo patients treated with combination treatments showed better efficacy. The highest efficacy was with potent topical corticosteroid, permitting a >75% of repigmentation in 6 months in > 90% of cases[31].

Excimer laser and lamp
Excimer laser and lamp are targeted phototherapy devices useful for treating localised skin lesions (< 10% BSA). Excimer stands for **exc**ited di**mer**. Excimer laser emits powerful pulses lasting nanoseconds at wavelengths in or near UVR. Excimer lamp emits light which is quasi-monochromatic. The lasing medium is a rare gas halide diatomic molecule, or dimer, in the excited state. Xenon chloride Excimer laser and lamp emit at 308nm, are used for treating skin diseases.

308nm Excimer laser gives the faster repigmentation rates than other devices. Hofer et al treated 14 patients with Excimer laser once, twice or thrice weekly over 12 weeks[32]. The repigmentation rate was dependent on the total treatment number but not the frequency. Hadi reviewed 97 patients with 221 stable vitiligo patches treated with Excimer laser. 50.6% of patches showed >75% repigmentation. Those on face, trunk, arm, and/or leg responded better than elbow, wrist, hand, knee and foot[33].
A review on six studies on excimer laser and lamp involving 411 patients with 764 lesions showed no significant difference between them in repigmentation[34]. The treatment was safe with mild adverse effects including pruritus, dryness and burning sensation. Lan et al and Nistico had shown 308nm Excimer laser combined with topical pimecrolimus or topical tacrolimus gave better repigmentation rate than laser alone[35, 36].

Compared with Excimer laser, Excimer lamp takes longer time to deliver the same fluence. Excimer lasers are much more expensive than excimer lamps and need a higher operational/maintenance cost[37]. Excimer lamp is smaller, has a larger probe than the laser thus saves space and is more efficient.

Targeted phototherapy device is a double-edged sword. It is very expensive compared with the conventional UV machines. Therefore, it is not recommended if the lesional area exceeds more than 10% of the body area in view of the enormous time and cost required.

Surgical Repigmentation
Refers to transplantation of patient's melanocytes from the normally pigmented area (donor) to the amelanocytic (recipient) area. Donor tissue could be normal epidermis with or without dermis, cultured cells or noncultured cells.

The procedure applies only to patients who have stable disease and have failed medical/light treatment. There is no strict agreement on a "stable" vitiligo but many accept the absence of new lesions, no progression of existing depigmentation, and absence of Kobner phenomenon in the past one or two years. The patient should attain score -1 in the VIDA System. A minigrafting test was proposed to assess stability before surgery[38]. Several 1-mm punch grafts are transplanted to the recipient site. Repigmentation is assessed at 3 months after the procedure. The test is positive when unequivocal repigmentation, beyond 1 mm and up to 2 to 3 mm from the border of the grafts. The test is negative if repigmentation is absent or less than 1 mm.

These are punch grafts, split-thickness grafts (SSG) or suction blister grafts (SBG). Punch grafting involves transferal of cylindrical skin grafts (1-2mm) to pre-punched recipient site. The grafts are 1-2 mm in diameter with regular spacing. Cobblestone effect, colour mismatch are shortcomings. Malakar et al reported that using miniature punch grafting, 90-100% repigmentation could be achieved in 74.55% patients[39].

SSG involve transferal of a thin superficial skin from the donor to a prepared recipient site. SBG are obtained from the roofs of suction blisters created on the donor area. The roof contains epidermis with its melanocytes and keratinocytes. The SBG are usually taken from the medial arms, thighs or abdomen. The recipient epidermis is removed via superficial dermabrasion or other means (e.g. CO2 laser, cryotherapy, suction). In Hong Kong, SBG for vitiligo were first reported in three patients in 1998. Two had complete or almost complete repigmentation while the third failed in the face of active disease[40]. Studies on SBG have shown very good repigmentation outcome.

Cultured cells

Melanocyte or melanocyte-keratinocyte cultures allow production of large number of melanocytes that could be transplanted to a much larger recipient area using only a small sheet of donor skin. In 1989, Plott et al treated 4 patients who received cells cultured (using MCDB-153 media) from normally pigmented epidermis on their dermabraded recipient areas. Repigmentation was successful in three at one-year follow-up[41]. Van Geel et al reported a repigmentation in 77% of patients 12 months after treatment. However, cell culture requires special laboratory facilities and expertise, and mitogens to enhance cell growth. A long period (2-5 weeks) for cell culture and a high cost needed are other disadvantages.

Non-cultured cells

Compared with cultured cells, the non-cultured technique is simpler and quicker. Non-cultured epidermal cell suspension (NCES) is in the form of keratinocyte/ melanocyte (or melanocyte rich) suspensions. One way to prepare the NCES is as follows: thin/ultrathin skin harvested from donor site is incubated in Trypsin 0.25% EDTA for cell separation. This is then rinsed with Lactated Ringer's solution (LRS) for removal of all trypsin. Using forceps, the dermis is separated and discarded from the epidermis which is broken down into small fragments, centrifuged for 5 minutes to form a cell pellet, re-suspended in LRS and drawn into a syringe ready for grafting. The graft is usually taken from the upper lateral thigh[42].

Surgical repigmentation with NCES gives a more favourable outcome than the SBG technique for the higher efficacy and need of only a small donor skin[43].

Depigmentation therapy

Artificial depigmentation of the residual unsightly pigmented macules may be sought when generalised depigmentation fails to improve. 20% monobenzyl ether of hydroquinone (MBEH) and 4-methoxyphenol (4-MP) are common agents. Both produce an increased delivery of oxygen radicals, destroying epidermal melanocytes. The depigmentation can be seen after a few months. Potential side effects include contact dermatitis, conjunctival melanosis and leukomelanoderma.

Q-switched ruby laser (QSR) and cryotherapy can also be used for depigmentation. QSR laser selectively destroys melanin at 694-nm wavelength. Depigmentation occurs in 7-14 days while 1-12 months is required for bleaching agents. 4-MP can be combined with QSR or cryotherapy for synergistic effect.

New treatments

Modern treatments will target at different points of the signalling pathways, cytokines and immune cells that are involved in vitiligo. Potential medications that may be beneficial for vitiligo include Afamelanotide[44], a synthetic analogue of α MSH, Bimatoprost 0.03%[45], a topical prostaglandin E, and JAK inhibitors[46]. Their details are beyond the scope of this review.

CONCLUSION

Treatment of vitiligo is difficult and prolonged. The outcome is usually unpredictable but often progressive for the NSV type. Although some spontaneous repigmentation, mostly perifollicular, may occur in 10-20% but not aesthetically acceptable[47].

While most patients enjoy good health, the negative psychosocial impact especially for patients of the pigmented races should not be taken lightly. Photoprotection is required. Different treatment modalities are available to halt the disease progress and induce repigmentation of depigmented skin. Clinicians should choose the best fit treatment regime taking into consideration their age, clinical types, activity, severity and psychological impact.

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Acne Inversa, Not to be Neglected!

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Dr Mimi Mee CHANG

INTRODUCTION

Acne is one of the commonest skin disorders encountered by general practitioners and dermatologists every day. Although many patients with acne will have fair disease control with topical agents, systemic antibiotics or retinoids, sometimes the condition can be very extensive and refractory to treatment. If you actively ask or look carefully at affected areas, occasionally you might be surprised that their acne and boils actually involve atypical regions such as axilla, groin, buttock and inframammary areas. Are these simply cases of 'severe or atypical acne'? Or are they representing a different disease entity?

HIDRADENITIS SUPPURATIVA

Hidradenitis suppurativa (HS), also known as acne inversa, is a suppurative scarring disease primarily affecting the hair follicles with secondary apocrine glands involvement. It is not just a severe form of acne vulgaris, though most patients with HS had acne in the past or at the time of assessment. The prevalence of HS ranges from 0.035% to 4% in most Caucasian studies1. It affects the female population predominantly, with disease onset after puberty, and diagnostic delay of years, sometimes up to 10-20 years[1,2]. The epidemiology of HS in Chinese is unknown, though nicastrin gene mutations have been identified[3]. It is often under-diagnosed, with patients presenting to various specialists and general practitioners[2,4].

HS is a chronic condition characterised by recurrent, deep-seated, inflammatory papulonodules, sterile abscesses and draining sinus tracts. It is specifically located in the apocrine gland-bearing areas, such as the axillary, inguinal, anogenital and inframammary areas6. Axillary involvement was found to be most common, followed by anogenital areas in our locality[2]. Patients suffer from pain, malodour and recurrent infections. (Fig. 1) In late stage disease, chronic ulceration, fistulation and disfiguring scars occur. The pain and scarring can be so severe that mobility is impaired. It can then be complicated by squamous cell carcinoma and secondary amyloidosis[1,6]. In the private setting, patients with mild HS usually present to general practitioners or dermatologists as "acne or boils ". In the hospital setting, patients with infected abscesses or cysts present to surgical units for treatment with incision and drainage, to colorectal surgeons or gastroenterologists for perianal abscesses or fistulating Crohn's disease, or to plastic surgeons for scar treatments and excision of sinus tracts. Very often, no specific diagnosis was made until they were finally assessed by dermatologists[2,3].

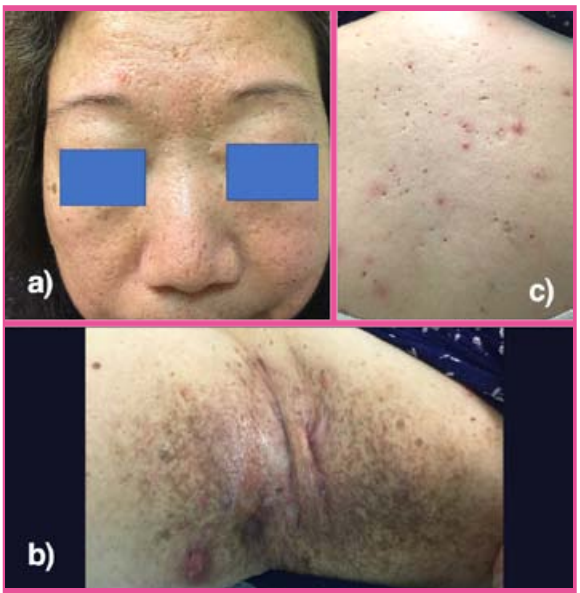

Fig. 1a), b), c). A 60 year-old lady with active HS with 20 years of diagnostic delay. She had history of teenage acne, recurrent infected boils and cysts and metabolic syndrome. She had multiple inflammatory papulonodules, cysts, and scarring sinus tracts on back, inframammary areas and axilla. She was treated with adalimumab after failure of doxycycline and high dose isotretinoin.

The central event of pathogenesis is at the terminal hair follicle. Upon dysregulation of innate immunity, there is abnormal follicular hyperkeratosis, plugging, dilatation and subsequent inflammation, abscess and sinus tracts formation. The apocrine glands and bacterial invasion occur secondarily. This recurrent, destructive inflammatory process involves various proteins, tumour necrosis factor and interluekins. It was found that smoking, obesity and metabolic syndrome greatly increased the odds of HS development (OR 4.5-12 times). It may occur sporadically, or in genetically susceptible families in an autosomal dominant fashion. Mutations in the gamma-secretase genes, especially nicastrin NCSTN, are identified[3]. A certain group of Chinese male patients who are non-obese suffering from follicular HS carry nicastrin mutation[3].

Other co-morbidities of HS include inflammatory bowel disease, spondyloarthopathies, follicular occlusion syndrome and follicular keratin defects[10]. It is not related to poor hygiene practice or recurrent shaving.

HS is mainly diagnosed clinically by typically located, deep-seated, recurrent lesions of post-pubertal onset, worsened by friction, smoking and obesity. (Fig. 2). There is no specific diagnostic test. Initial wound swab for bacteriology can be negative, indicating that these sterile lesions are not arising as a result of infections (or unhygienic practices). However, the lesions later could be colonised by skin flora or other gram-negative and/or anaerobic bacteria, leading to infections, which would warrant the use of antimicrobials.

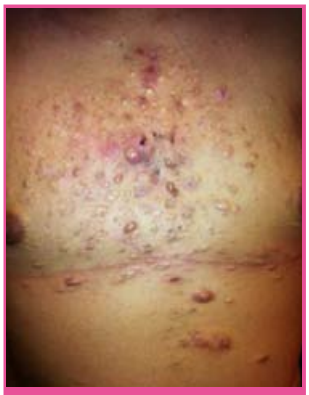

Fig. 2. A 40-year-old man with severe diabetes and typical lesions of HS. He was previously thought to be suffering from recurrent boils due to poor diabetes control.

Skin biopsy is seldom needed for making the diagnosis, but is useful to exclude alternative diagnosis or malignant transformation. An early HS histology shows perifollicular hyperkeratosis and inflammation. Later, granulomatous inflammation, fibrosis, scarring of the adjacent apocrine glands and sinus tract formation are found (Fig 3). Differential diagnoses include acne conglobata, carbuncles, multiple epidermoid cysts, pyoderma gangrenosum, fistulating deep fungal, mycobacterial or venereal infections and fistulating Crohn's disease. Excluding chronic infections and inflammatory bowel disease before diagnosing HS by tissue culture and histology is pertinent. Assessment of severity of inflammation through laboratory inflammatory markers (ESR, CRP) and depth by magnetic resonance imaging is often necessary.

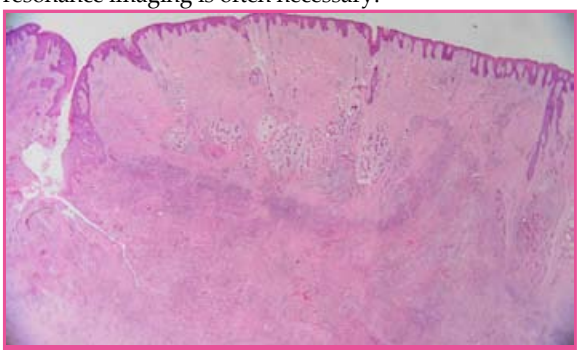

Fig. 3. Histologic diagnosis of late HS showing lymphohistiocytic inflammation, granulomatous reaction, sinus tract and scarring.

The severity of HS is traditionally graded by Hurley's staging. Stage I involves single or a few abscesses without scarring; stage II involves recurrent, non-confluent inflammatory lesions with formation of sinus tracts, while in stage III, these inflammatory lesions are diffuse and confluent, forming multiple interconnecting sinus tracts. This pragmatic classification is mainly used for decision on surgical treatment. Quantitative assessment of inflammation through other scoring systems is necessary to assess the severity and progress[5,10].

TREATMENT

General measures such as weight reduction, smoking cessation, reduction of friction and moisture in intertriginous areas are important in all stages of HS[10]. Continuous smoking and weight gain lead to lower rates of HS remission. Antiseptics, topical antibiotics and antiperspirants are frequently used to reduce symptoms of secondary infections. Prophylactic laser hair reduction can be considered.

Stage I (mild, inflamed disease) can be treated with tetracycline group antibiotics, such as topical clindamycin, or oral doxycycline, and intralesional steroid for individual inflamed lesions. Stage I non-inflamed recurrent lesions can be excised surgically. Stages of II and above indicate severe disease, and treatment includes systemic retinoids, cyclosporine, or TNF-alpha antagonists[6]. The strongest level of evidence for efficacy favours biologics use[7] (adalimumab weekly dosing, followed by infliximab), with limited conclusions for other interventions in Cochrane reviews[8]. Disabling scarring and sinus tracts can be managed by wide local excisions and secondary intention healing[8]. Incision and drainage alone invariably causes relapse[9].

Although surgical excision is the principal treatment for chronic, relapsing HS, it offers cure at the treatment site only and does not reduce systemic inflammation, unlike systemic medications. Very often, a combination of medical therapy (targeting at inflammation) and surgical treatment is needed for active, widespread disease[10].

CONCLUSION

In summary, HS is a rare but an embarrassing and disabling condition which masquerades as severe acne, boils or folliculitis. We need to look beyond the face when assessing a patient with acne. A heightened index of suspicion is important for early disease recognition. HS is also often under-treated. Aggressive treatment in early stage in controlling the inflammation and preventing long-time complications is important. A comprehensive management plan driven by dermatologists, and timely communication with surgeons for combined-modality treatment, is crucial for treatment success.

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Medical Diary of November

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				* HKMA Hong Kong East Community Network - Early Diagnosis & Management of Alzheimer's Disease & Mild Cognitive Impairment * HKMA Kowloon East Community Network - The Position of DPP4-I in Diabetes Management **1**	* FMSHK Certificate Course on Clinical Cytogenetics and Genetics 2018 **2**	* MPS Workshop - Mastering Your Risk **3**
4	* FMSHK Certificate Course in Cardiology 2018 **5**	* HKMA Kowloon West Community Network - Advances in Hypertension Management * HKMA-HKS&H CME Programme 2018 -2019 * FMSHK Officers' Meeting * HKMA Council Meeting **6**	* HKMA Central, Western & Southern Community Network - Novel Treatment in Diabesity * FMSHK Certificate Course on Disease in Otorhinolaryngology, Head & Neck Surgery (ENT) **7**	* HKMA New Territories West Community Network - An Overview of Eczema for Primary Care **8**	* FMSHK Certificate Course on Clinical Cytogenetics and Genetics 2018 **9**	* Refresher Course for Health Care Providers 2018/2019 - Sports Medicine **10**
* HKMA Family Sports Day 2018 **11**	* FMSHK Certificate Course in Cardiology 2018 **12**	* HKMA Yau Tsim Mong Community Network - Glycemic Control in Patient with Moderate to Severe Renal Impairment * MPS Workshop - Building Resilience and Avoiding Burnout **13**	* HKMA Central, Western & Southern Community Network - Diagnosis of ACS and updates of international guidelines of DAPT * FMSHK Certificate Course on Disease in Otorhinolaryngology, Head & Neck Surgery (ENT) **14**	* HKMA CME - Salivary gland disorder and sialoendoscopy * HKMA Hong Kong East Community Network - Latest Insights to Achieve Optimal Asthma Control **15**	* FMSHK Certificate Course on Clinical Cytogenetics and Genetics 2018 **16**	**17**
* Endocrinology, Diabetes & Metabolism Hong Kong (EDMHK) Inauguration Conference **18**	* FMSHK Certificate Course in Cardiology 2018 **19**	* HKMA Kowloon West Community Network - Common Sports Injury of Upper Limb * MPS Workshop - Building Resilience and Avoiding Burnout **20**	* FMSHK Certificate Course on Disease in Otorhinolaryngology, Head & Neck Surgery (ENT) **21**	* FMSHK Executive Committee Meeting * FMSHK Council Meeting * FMSHK 33rd Annual General Meeting * HKFMS Foundation 19th Annual General Meeting **22**	* HKMA Shatin Doctors Network - GLP-1 Receptor Agonist in Weight Management **23**	**24**
25	**26**	**27**	* FMSHK Certificate Course on Disease in Otorhinolaryngology, Head & Neck Surgery (ENT) **28**	**29**	* HKMA Yau Tsim Mong Community Network - Infections and Infestations in Hong Kong **30**	

Date / Time	Function	Enquiry / Remarks
1 THU 1:00 PM	**HKMA Hong Kong East Community Network - Early Diagnosis & Management of Alzheimer's Disease & Mild Cognitive Impairment** Organiser: HKMA Hong Kong East Community Network; Chairman: Dr. YOUNG Ying Nam, Dominic; Speaker: Prof. WONG Ka Sing, Lawrence; Venue: HKMA Wanchai Premises, 5/F, Duke of Windsor Social Service Building, 15 Hennessy Road, HK	Ms. Candice TONG Tel: 2527 8285 1 CME Point
1:00 PM	**HKMA Kowloon East Community Network - The Position of DPP4-I in Diabetes Management** Organiser: HKMA-Kowloon East Community Network; Chairman: Dr. LEUNG Wing Hong; Speaker: Dr. TING Zhao Wei, Rose; Venue: Lei Garden Restaurant, Shop No. L5-8, apm, Kwun Tong, No. 418 Kwun Tong Road, Kowloon	Ms. Antonia LEE Tel: 2527 8285 1 CME Point
2 FRI 7:00 PM	**FMSHK Certificate Course on Clinical Cytogenetics and Genetics 2018** Organiser: The Federation of Medical Societies of Hong Kong; Venue: Lecture Hall, 4/F, Duke of Windsor Social Service Building, 15 Hennessy Road, Wan Chai, Hong Kong	The Secretariat of FMSHK Tel: 2527 8898 Fax: 2865 0345
3 SAT 2:30 PM	**MPS Workshop - Mastering Your Risk** Organiser: The Hong Kong Medical Association & Medical Protection Society; Speaker: Dr. CHENG Ngai Shing, Justin; Venue: HKMA Central Premises, Dr. Li Shu Pui Professional Education Centre, 2/F, Chinese Club Building, 21-22 Connaught Road Central, HK	HKMA CME Dept. Tel: 2527 8285 3 CME Point
5 MON 7:00 PM	**FMSHK Certificate Course in Cardiology 2018** Organiser: The Federation of Medical Societies of Hong Kong; Venue: Lecture Hall, 4/F, Duke of Windsor Social Service Building, 15 Hennessy Road, Wan Chai, Hong Kong	The Secretariat of FMSHK Tel: 2527 8898 Fax: 2865 0345
6 TUE 1:00 PM	**HKMA Kowloon West Community Network - Advances in Hypertension Management** Organiser: HKMA Kowloon West Community Network; Chairman: Dr. LEUNG Kin Nin, Kenneth; Speaker: Dr. TAM Kin Ming; Venue: Sportful Garden Restaurant, 陶源酒家, 2/F, 114C Broadway Street, Mei Foo Sun Chuen Stage 8, Mei Foo	Ms. Antonia LEE Tel: 2527 8285 1 CME Point
1:00 PM	**HKMA-HKS&H CME Programme 2018 -2019** Organiser: Hong Kong Medical Association & Hong Kong Sanatorium & Hospital; Speaker: Dr. TONG King Hung, Daniel; Venue: HKMA Central Premises, Dr. Li Shu Pui Professional Education Centre, 2/F, Chinese Club Building, 21-22 Connaught Road Central, HK	HKMA CME Dept. Tel: 2527 8285 1 CME Point
8:00 PM	**FMSHK Officers' Meeting** Organiser: The Federation of Medical Societies of Hong Kong; Venue: Gallop, 2/F, Hong Kong Jockey Club Club House, Shan Kwong Road, Happy Valley, Hong Kong	Ms. Nancy CHAN Tel: 2527 8898
9:00 PM	**HKMA Council Meeting** Organiser: The Hong Kong Medical Association; Chairman: Dr. HO Chung Ping, MH, JP; Venue: HKMA Wanchai Premises, 5/F, Duke of Windsor Social Service Building, 15 Hennessy Road, HK	Ms. Christine WONG Tel: 2527 8285
7 WED 1:00 PM	**HKMA Central, Western & Southern Community Network - Novel Treatment in Diabesity** Organiser: HKMA Central, Western & Southern Community Network; Chairman: Dr. TSANG Kin Lun; Speaker: Dr MIU Kin Man; Venue: HKMA Central Premises, Dr. Li Shu Pui Professional Education Centre, 2/F, Chinese Club Building, 21-22 Connaught Road Central, HK	Ms. Antonia LEE Tel: 2527 8285 1 CME Point
7:00 PM	**FMSHK Certificate Course on Disease in Otorhinolaryngology, Head & Neck Surgery (ENT)** Organiser: The Federation of Medical Societies of Hong Kong; Venue: Lecture Hall, 4/F, Duke of Windsor Social Service Building, 15 Hennessy Road, Wan Chai, Hong Kong	The Secretariat of FMSHK Tel: 2527 8898 Fax: 2865 0345
8 THU 1:00 PM	**HKMA New Territories West Community Network - An Overview of Eczema for Primary Care** Organiser: HKMA New Territories West Community Network; Chairman: Dr. TSUI Fung; Speaker: Dr. WU Wai Fuk; Venue: Pak Loh Chiu Chow Restaurant, Shop A316, 3/F, Yoho Mall II, Yuen Long	Ms. Antonia LEE Tel: 2527 8285 1 CME Point
9 FRI 7:00 PM	**FMSHK Certificate Course on Clinical Cytogenetics and Genetics 2018** Organiser: The Federation of Medical Societies of Hong Kong; Venue: Lecture Hall, 4/F, Duke of Windsor Social Service Building, 15 Hennessy Road, Wan Chai, Hong Kong	The Secretariat of FMSHK Tel: 2527 8898 Fax: 2865 0345
10 SAT 2:15 PM	**Refresher Course for Health Care Providers 2018/2019 - Sports Medicine** Organiser: Hong Kong Medical Association, HK College of Family Physicians, HA-Our Lady of Maryknoll Hospital; Speaker: Dr. LEE Hin Lun;Venue: Training Room II, 1/F, OPD Block, Our Lady of Maryknoll Hospital, 118 Shatin Pass Road, Wong Tai Sin, Kowloon	Ms. Clara Tsang Tel: 2354 2440 2 CME Point
11 SUN 12:00 PM	**HKMA Family Sports Day 2018** Organiser: The Hong Kong Medical Association; Chairman: Dr. CHAN Hau Ngai, Kingsley, Dr. IP Wing Yuk, Dr. YEUNG Hip Wo, Victor; Venue: HKU Stanley Ho Sports Centre Complex, 10 Sha Wan Dr, Sandy Bay, Hong Kong	Ms. Sinn TANG Tel: 2527 8285
12 MON 7:00 PM	**FMSHK Certificate Course in Cardiology 2018** Organiser: The Federation of Medical Societies of Hong Kong; Venue: Lecture Hall, 4/F, Duke of Windsor Social Service Building, 15 Hennessy Road, Wan Chai, Hong Kong	The Secretariat of FMSHK Tel: 2527 8898 Fax: 2865 0345
13 TUE 1:00 PM	**HKMA Yau Tsim Mong Community Network - Glycemic Control in Patient with Moderate to Severe Renal Impairment** Organiser: HKMA Yau Tsim Mong Community Network; Chairman: Dr. HO Kit Man, Carmen; Speaker: Dr. CHAN Wing Bun; Venue: Crystal Ballroom, 2/F, The Cityview Hong Kong, 23 Waterloo Road, Kowloon	Ms. Candice TONG Tel: 2527 8285 1 CME Point
6:30 PM	**MPS Workshop - Building Resilience and Avoiding Burnout** Organiser: The Hong Kong Medical Association & Medical Protection Society; Speaker: Dr. FUNG Shu Yan, Anthony; Venue: HKMA Central Premises, Dr. Li Shu Pui Professional Education Centre, 2/F, Chinese Club Building, 21-22 Connaught Road Central, HK	HKMA CME Dept. Tel: 2527 8285 3 CME Point

Date / Time	Function	Enquiry / Remarks
14 WED 1:00 PM	**HKMA Central, Western & Southern Community Network - Diagnosis of ACS and updates of international guidelines of DAPT** Organiser: HKMA Central, Western & Southern Community Network; Chairman: Dr. YIK Ping Yin; Speaker: Dr. KWOK Chun Kit, Kevin; Venue: HKMA Central Premises, Dr. Li Shu Pui Professional Education Centre, 2/F, Chinese Club Building, 21-22 Connaught Road Central, HK	Ms. Antonia LEE Tel: 2527 8285 1 CME Point
7:00 PM	**FMSHK Certificate Course on Disease in Otorhinolaryngology, Head & Neck Surgery (ENT)** Organiser: The Federation of Medical Societies of Hong Kong; Venue: Lecture Hall, 4/F, Duke of Windsor Social Service Building, 15 Hennessy Road, Wan Chai, Hong Kong	The Secretariat of FMSHK Tel: 2527 8898 Fax: 2865 0345
15 THU 12:30 PM	**HKMA CME - Salivary gland disorder and sialoendoscopy** Organiser: The Hong Kong Medical Association; Speaker: Dr. CHUNG Yiu Kei, Geoffrey; Venue: HKMA Central Premises, Dr. Li Shu Pui Professional Education Centre, 2/F, Chinese Club Building, 21-22 Connaught Road Central, HK	HKMA CME Dept. Tel: 2527 8285 1 CME Point
1:00 PM	**HKMA Hong Kong East Community Network - Latest Insights to Achieve Optimal Asthma Control** Organiser: HKMA Hong Kong East Community Network; Chairman: Dr. GOH Kim Yeow, Joseph; Speaker: Dr. WONG King Ying; Venue: HKMA Wanchai Premises, 5/F, Duke of Windsor Social Service Building, 15 Hennessy Road, HK	Ms. Candice TONG Tel: 2527 8285 1 CME Point
16 FRI 7:00 PM	**FMSHK Certificate Course on Clinical Cytogenetics and Genetics 2018** Organiser: The Federation of Medical Societies of Hong Kong; Venue: Lecture Hall, 4/F, Duke of Windsor Social Service Building, 15 Hennessy Road, Wan Chai, Hong Kong	The Secretariat of FMSHK Tel: 2527 8898 Fax: 2865 0345
18 SUN 9:00 AM	**Endocrinology, Diabetes & Metabolism Hong Kong (EDMHK) Inauguration Conference** Organizer: KK Leung Diabetes Centre, Osteoporosis Centre of Queen Mary Hospital, the University of Hong Kong; Venue: Hong Kong Convention and Exhibition Centre	EDMHK 2018 Conference Secretariat c/o International Conference Consultants Ltd. Tel: (852) 2559 9973 Email: edmhk2018@icc.com.hk
19 MON 7:00PM	**FMSHK Certificate Course in Cardiology 2018** Organiser: The Federation of Medical Societies of Hong Kong; Venue: Lecture Hall, 4/F, Duke of Windsor Social Service Building, 15 Hennessy Road, Wan Chai, Hong Kong	The Secretariat of FMSHK Tel: 2527 8898 Fax: 2865 0345
20 TUE 1:00 PM	**HKMA Kowloon West Community Network - Common Sports Injury of Upper Limb** Organiser: HKMA Kowloon West Community Network; Chairman: Dr. TONG Kai Sing; Speaker: Dr. CHEUNG Kin Wing; Venue: Fulum Palace, Shop C, G/F, 85 Broadway Street, Mei Foo Sun Chuen	Ms. Antonia LEE Tel: 2527 8285 1 CME Point
6:30 PM	**MPS Workshop - Building Resilience and Avoiding Burnout** Organiser: The Hong Kong Medical Association & Medical Protection Society; Speaker: Dr. FUNG Shu Yan, Anthony; Venue: The Cityview, Kowloon	HKMA CME Dept. Tel: 2527 8285 3 CME Point
21 WED 7:00 PM	**FMSHK Certificate Course on Disease in Otorhinolaryngology, Head & Neck Surgery (ENT)** Organiser: The Federation of Medical Societies of Hong Kong; Venue: Lecture Hall, 4/F, Duke of Windsor Social Service Building, 15 Hennessy Road, Wan Chai, Hong Kong	The Secretariat of FMSHK Tel: 2527 8898 Fax: 2865 0345
22 THU 7:00 PM	**FMSHK Executive Committee Meeting** Organiser: The Federation of Medical Societies of Hong Kong; Venue: Council Chamber, 4/F, Duke of Windor Social Service Building, 15 Hennessy Road, Wanchai, Hong Kong	Ms. Nancy CHAN Tel: 2527 8898
7:30 PM	**FMSHK Council Meeting** Organiser: The Federation of Medical Societies of Hong Kong; Venue: Council Chamber, 4/F, Duke of Windor Social Service Building, 15 Hennessy Road, Wanchai, Hong Kong	Ms. Nancy CHAN Tel: 2527 8898
8:00 PM	**FMSHK 33rd Annual General Meeting** Organiser: The Federation of Medical Societies of Hong Kong; Venue: Council Chamber, 4/F, Duke of Windor Social Service Building, 15 Hennessy Road, Wanchai, Hong Kong	Ms. Nancy CHAN Tel: 2527 8898
8:30 PM	**HKFMS Foundation 19th Annual General Meeting** Organiser: The Federation of Medical Societies of Hong Kong; Venue: Council Chamber, 4/F, Duke of Windor Social Service Building, 15 Hennessy Road, Wanchai, Hong Kong	Ms. Nancy CHAN Tel: 2527 8898
23 FRI 1:00 PM	**HKMA Shatin Doctors Network - GLP-1 Receptor Agonist in Weight** ManagementOrganiser: HKMA Shatin Doctors Network; Chairman: Dr. MAK Wing Kin; Speaker: Dr. Enoch WU; Venue: Diamond Room, 2/F, Royal Park Hotel, 8 Pak Hok Ting Street, Shatin	Ms. Candice TONG Tel: 2527 8285 1 CME Point
28 WED 7:00 PM	**FMSHK Certificate Course on Disease in Otorhinolaryngology, Head & Neck Surgery (ENT)** Organiser: The Federation of Medical Societies of Hong Kong; Venue: Lecture Hall, 4/F, Duke of Windsor Social Service Building, 15 Hennessy Road, Wan Chai, Hong Kong	The Secretariat of FMSHK Tel: 2527 8898 Fax: 2865 0345
30 FRI 1:00 PM	**HKMA Yau Tsim Mong Community Network - Infections and Infestations in Hong Kong** Organiser: HKMA Yau Tsim Mong Community Network; Chairman: Dr. CHENG Kai Chi, Thomas; Speaker: Dr. LEE Tze Yuen; Venue: Crystal Ballroom, 2/F, The Cityview Hong Kong, 23 Waterloo Road, Kowloon	Ms. Candice TONG Tel: 2527 8285 1 CME Point

Upcoming Event

1 Dec 2018 3:00 PM-6:00 PM	**2018 Paediatric Update No. 2 – Child and Adolescent Mental health** Organiser: Hong Kong College of Paediatricians; Venue : hong Kong Academy of Medicine Lim Por Yen Lecture Theatre; Chairpersons: Dr Patrick CHEUNG, Dr Florence LEE; Speaker: Dr CHAN Kwok-ling, Dr TSUI Kwing-wan, Dr Lilian WONG	CME Accrediation: 3points Enquiry: Ms Lily LIN Tel: 2871 8752 Fax: 2785 1850
16 Dec 2018 2:00 PM	**Managing Allergy, from Gut to Skin 從腸胃到皮膚， 中西醫論過敏** Organiser: Association for Integrative Aesthetic Medicine, Hong Kong; Chairman: Dr LEE Jin; Speaker: Loo King Fan, Yu Chau Leung, Chan Chun Yin, Lin Zhi Xiu; Venue: LT5, Yasumoto International Academic Park,CUHK	Queenie Tel: 3575 8600

Answers to Dermatology Quiz

Answer:

1. Ramsay Hunt Syndrome
   The diagnosis of this gentleman is Ramsay Hunt Syndrome and the diagnosis is often made clinically. It was first described in 1907 by James Ramsay Hunt and the typical presentation is lower motor neuron type of facial nerve palsy with vesicular rash found on the ipsilateral ear canal, pinna, anterior 2/3 of the tongue and soft palate. The patient may also have vertigo, ipsilateral tinnitus and hearing loss.

2. Ramsay Hunt Syndrome is also known as geniculate neuralgia. It is the reactivation of varicella-zoster virus (VZV) infection in the geniculate ganglion of the 7th cranial nerve (facial nerve). Since it is due to VZV reactivation, skin lesions may give rise to vesiculation and ulceration, sometimes with crusting along the external pinna, ear canal, anterior 2/3 of the tongue and soft palate with ipsilateral lower motor neuron facial nerve palsy. Conventionally, VZV cell culture, Tzanck smear, direct immunofluorescence assay (DFA) and polymerase chain reaction (PCR) from the skin lesions can help to identify VZV reactivation.

3. Oral corticosteroids and oral anti-viral agents against VZV are the standard treatment for Ramsay Hunt Syndrome. Acyclovir 800mg 5 times per day for 5 to 7 days is the classical treatment. Newer medications like famciclovir and valacyclovir are also effective for herpes zoster. A moderate to potent analgesic is often necessary for pain control and antibiotics should also be prescribed if secondary bacterial infection occurs.

Dr Chi-keung KWAN
MBBS(HK), FRCP(Glasg), FHKCP, FHKAM(Med)
Specialist in Dermatology and Venereology

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- Provides L-lactic acid and niacinamide, which have been shown to help support synthesis of ceramides from within[2,3]
- Increases skin hydration and reduces TEWL[4]
- Rehydrates and soothes dry, itchy or damaged skin[4]

References:
1. Rawlings AV and Maibach HI. Illinois: Allured books; 2011. Chapter 44, p 367-80. 2. Tanno O, Ota Y, Kitamura N, Katsube T and Inoue S. Brit J Dermatol. 2000; 143: 524-531. 3. Rawlings AV, Davies A, Carlomusto M, et al. Arch Dermatol Res 1996; 288(7): 383-390. 4. Data on file: Spada, F, Greive KA and Barnes TM, 2016

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