Social Hygiene Symposium 2000 (STI & Dermatology Symposium)

reported by Dr. L. S. Ku

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Management of Psoriasis - Recent Advances

Speaker: Dr. C. Y. Leung

The speaker started by giving a brief introduction on the various types of psoriasis including chronic plaque psoriasis, guttate psoriasis, inverse psoriasis, pustular psoriasis and erythrodermic psoriasis. The exact pathogenesis of the disease is not known and there is certainly genetic as well as environmental predisposition. Miraculous cure for the disease is not foreseeable in the near future. Management should be aimed at controlling the symptoms and the extent of the disease enabling the patient to lead a relatively normal life.

Topical therapy

Topical therapy is still the first line therapy for many patients with stable chronic plaque psoriasis. New topical steroids are said to be of fewer side effects than the older ones. Topical Vitamin D3 analogues in the forms of ointment, cream and scalp lotion are relatively new agents for treatment of psoriasis. Their antipsoriatic effects are comparable to moderately potent topical steroid, whereas tachyphylaxis and skin atrophy is not a problem. There is also a new preparation of the old drug dithranol for short contact therapy. Tar preparations having anti-mitotic effect and no systemic toxicity is also useful. Side effects include folliculitis and a suspected increase in skin cancer risk. Tar is contraindicated in erythrodermic psoriasis and pustular psoriasis. Tarzarotene gel, a new topical retinoid, has been shown to have therapeutic effect on psoriasis plaques. Side effects like retinoid dermatitis and cutaneous irritation can be reduced by combination with topical steroid. Other potential new agents, for example topical tacrolimus (FK506), are under development and may be available in the near future.

Phototherapy & photochemotherapy

The new TL01 fluorescence tube which produces narrow band UVB of wavelength 311 nm is one of the major recent advances. Its efficacy is comparable to PUVA therapy. The use of topical psoralen in delivery of PUVA therapy, especially in bath PUVA, has been shown to be superior to conventional PUVA in having a lower total cumulative UVA dose.

Systemic therapy

Methotrexate remains a very important drug for the treatment of moderate to severe psoriasis, particularly in the presence of arthropathy. Long term use is limited by hepatotoxicity. Systemic retinoids are probably the drug of choice for generalized pustular psoriasis. Acitretin, having a shorter half-life, has replaced etretinate. They have similar therapeutic effect and side effect profiles. Cyclosporin is particularly useful in bringing down acute inflammatory disease in short term. Its role in long term continuous use beyond one year is uncertain. Renal function and blood pressure should be monitored closely and the dose should be kept below 5 mg/kg/day. Oral fumaric acid esters have been popular in European countries and their efficacy have been demonstrated in many trials. Acute renal failure is a potential serious side effect. Mycophenolate mofetil and 6-thioguanine are also new drugs for systemic treatment of severe psoriasis.

Treatment strategy

The first step is to bring down the acute state. Secondly one should plan for long term control using combination therapy. In difficult cases, phototherapy, photochemotherapy or systemic treatment like methotrexate and acitretin may be needed.

Learning points:

Newer drugs and treatment modalities can maximize improvement and minimize side effects. The use of combination therapy is safer and more effective.

Prescriptions and Therapies in Dermatology - An Update

Speaker: Dr. W. Y. M. Tang

Some dermatological conditions often run a remitting and relapsing course. While drug treatment is often not curative, removal or avoidance of predisposing or aggravating factors are often very rewarding. Health education and counseling should, thus, go hand-in-hand with pharmaceutical treatments.

Health education

The sun and skin

Ultraviolet radiation is now known to accelerate skin aging, predispose to eye disease, for example, cataract, affect immune regulation and play an important role in cutaneous malignancies. Avoidance of sun exposure, protective clothing and proper use of sunscreens is useful in reducing these adverse effects. Sunscreens can be divided into physical and chemical agents. The former includes zinc oxide, microfine zinc oxide and titanium oxide. They can block a wider spectrum of UVR. The chemical sunscreens are odorless and colorless. Their spectrum of protection is also narrower than the physical sunscreens. Broadbrim hat and long sleeve shirts are more economical and effective physical measures to protect against the sun.

Alcohol and skin

Alcohol not only affects immunity by impairing neutrophils and T cells function, and later MHC antigen expression in the skin, it also alters cutaneous vasculature. Alcoholics are more prone to cutaneous infections, psoriasis and rosacea. Alcohol can provoke psoriasis by two patterns, namely the hyperkeratotic type and the inflamed with minimal scaling type. Other dermatological conditions affected by alcohol are porphyria cutanea tarda, acne, discoid eczema and pellagra.

Smoking and skin

The harmful effects of cigarette smoking on skin have been under-recognized. Smoking has adverse effects on atopic eczema, hidradenitis suppurativa, chronic palmoplantar eczema, cutaneous lupus erythematous, flap survival and psoriasis. Genital warts in smokers response less well to podophyllin treatment compared to non-smokers. Cigarette smoking is also associated with skin aging.

Food and food allergy in dermatology

A recent study on a group of atopic dermatitis children showed that although about 20% of them had clinically relevant food allergy, majority of them only had one or two offending food items. Blind food restriction can thus be harmful and should not be carried out without ample clinical evidence. The gold standard to diagnose food allergy is the food challenge test, which is not widely available.

Topical therapy

Drug compounding

Drug compounding involves mixing of two or more topical medicaments in order to achieve a desirable clinical efficacy at low costs. It fills the gap caused by the absence of a commercially available drug. They are tailor-made with the concentrations of individual ingredients altered. A good understanding on the individual drug ingredients and the clinical condition concerned is essential.

Steroid allergy

This refers to an allergy to the steroid ingredient and excludes the components such as the base material, vehicle or additives. This should be suspected when an allergic skin condition failed to improve with repeated steroid application. According to cross sensitivity, this can be classified into four groups, namely the hydrocortisone group, the triamcinolone acetonide group, the betamethasone group and the hydrocortisone-17 butyrate group. A patient allergic to a topical steroid may also be allergic to another steroid of the same group, although cross sensitivity is also possible. The newer generation or soft steroid might be less sensitizing.

Office procedures

Electrotherapy

Two main forms of electrotherapy are currently used in Lek Yuen Social Hygiene clinic, namely transcutaneous electrical nerve stimulation (TENS) and tap water iontophoresis (TWI). TENS has been used for postherpetic neuralgia, livedo vasculopathy and Raynaud's phenomenon and some pruritic skin conditions. The therapeutic mechanism of TENS is explained by the gate control theory. A recent published study by Chan et al on nine patients, who failed topical aluminum chloride, using TWI for palmoplantar

hyperhidrosis had 51% sweat output reduction after six weeks of treatment without significant side effects.

Shave excision

Some benign cutaneous conditions like seborrheic keratosis, warts and pyogenic granuloma can be amenable to shave excision in selected cases. Suturing is not required and a better aesthetic effect can be achieved. A BP handle with a No.11 blade or a razor with or without a Castroviejo holder can be used.

Dermabrasion

Dermabrasion is useful in both cosmetic and non-cosmetic dermatological conditions, for example lichen amyloidosis. A good practical knowledge of different anatomic levels (depths) of the skin is needed. Adequate analgesia is necessary and pigmentary change is a possible side effect. So far the speaker has not encountered post-operative scarring or infection.

Learning points:
Health education and counseling should go hand-in-hand with pharmaceutical treatments.

Management of Atopic Dermatitis

Speaker: Dr. H. H. F. Ho

A systematic approach to the management of atopic dermatitis with treatment tailored to the severity of the disease and the patient's individual need allows the optimal control of atopic dermatitis. This involves assessment, staging, treatment and reassessment, again and again. The optimal eczema control is based on the proper use of emollient, topical steroid and to a lesser extent oral antihistamine and antibiotics. Patient education is fundamental to all these modalities. This involves four "r"s, namely reassurance, realistic, rehearsing and revise.

Skin care includes the management of xerotic skin and the removal of irritants. Emollients should be applied thinly and frequently rather than thickly and occasionally. It is important to find the kind of emollients that the patient is most willing to use. Irritants should be removed by avoidance of woolen clothing and soap, protection from extreme of temperature and excessive sunlight.

Topical steroids are the most important medication in the management of atopic dermatitis. Newer generations of topical steroids are less atrophogenic and have less risk of systemic absorption.

Antihistamines are used for their sedating effects in order to break the itch-scratch cycle. Paradoxical stimulating effect may be seen in some children. Minimally sedating antihistamines are also available. Although they have the benefit of reduced sedation, the effectiveness of improving atopic dermatitis is also compromised. Antibiotics are indicated if there is evidence of infection. Colonization by bacteria like staphylococcus contribute to dermatitis by superantigen effect. Hence antibiotic may also be helpful in exacerbations even when there are no evidence of infection.

For unresponsive patients, wet-wrap will usually be effective and is particularly useful in extensive dry lichenified disease. It is a very fast acting highly effective procedure, inexpensive and relatively free from severe side effects. Highly motivated patient and parents with a dedicated team of health care workers is important.

Narrow band UVB and high-dose UVA1 are newer modalities of phototherapy. While allergy plays a definite role, allergy management against food and non-food allergens is very difficult to enforce. If dietary restriction is to be considered, help from paediatricians and dietitians experienced in atopic dermatitis should be seek. A short hospital stay will be beneficial if the disease is getting out of control.

Third line medications like cyclosporin A micro-emulsion, systemic steroid, intravenous immunoglobulin, interferon-gamma, topical FK506, SDZ981, mycophenolate may be employed for patients with exceptionally severe atopic dermatitis. Before using these agents, it is necessary to make sure that the diagnosis of atopic dermatitis is correct, that conventional treatments have been appropriately carried out and that the elements of infections and contact dermatitis have been eliminated.

Learning points:
Most patients with atopic dermatitis can be controlled with simple first-line measures. A multi-disciplinary approach is necessary and the cooperation between patients and health-care workers is important.

Management of Sexually Transmitted Infections including HIV Infections in Pregnancy

Speaker: Dr. K. M. Ho

Sexually transmitted infections (STI) and pregnancy

STIs are associated with subfertility, ectopic pregnancy, spontaneous abortion, prematurity, prolonged rupture of membrane, congenital abnormalities, intrauterine growth retardation, puerperal sepsis, stillbirth and neonatal infections. Drug use in pregnancy is also limited. STIs during pregnancy can be asymptomatic or symptoms can be obscured and the level of suspicion may not be high enough.

Syphilis

Based on US figures, almost 100% of the fetus will be affected in maternal primary and secondary syphilis and this may result in 50% prenatal death. In maternal early latent syphilis, 40% of the fetus will suffer from prematurity or perinatal death. Ten percent of the fetus will end up with congenital syphilis if the mother is having late latent syphilis during conception. Young unmarried mother with multiple sex partners and without antenatal care are risk factors for congenital syphilis. It is found that treatment before 16 to 18 weeks of gestation can prevent fetal damage.

Gonococcus and chlamydia

The chance of pharyngeal gonococcal infection and disseminated gonococcal infection are increased in pregnancy. Gonococcal infection is associated with prematurity and chorioamnionitis. Chlamydia infection may cause ophthalmia neonatorum, puepertial infection, post-abortal pelvic inflammatory disease and low birth weight.

Genital wart

The size of genital wart may increase with advancing gestation. Only trichloroacetic acid, cryotherapy, laser therapy, loop surgery and electrocautry can be used. Maternal genital wart is associated with childhood anogenital warts and laryngeal papillomatosis.

Herpes genitalis

Primary herpes genitalis (HG) increases the risk of spontaneous abortion and prematurity. Maternal HG at term is also associated with life threatening neonatal herpes infection. Primary HG is more likely than recurrent HG to cause spontaneous abortion, neonatal infection and low birth weight.

HIV related pregnancy in Hong Kong

There are 41 HIV-related pregnancies in Hong Kong between late 1992 and 1999 in a retrospective study including cases seen in Queen Elizabeth Hospital and Special Preventive Program of Department of Health. The number of HIV infected women was 32 resulting in 41 pregnancies. The mean age was 25.2 years. Of these 41 pregnancies, 15 ended up in abortion and 26 babies were born. Six out of these 26 pregnancies were given zidovudine (AZT) as prophylaxis. AZT was given five times per day from 14 weeks of gestation till term and then followed by intravenous AZT during labor and subsequently oral AZT for six more weeks to the baby. All six babies were confirmed to be HIV antibody negative. The success of prevention of vertical transmission therefore hinges on the detection of maternal HIV positivity antenatally. In two local studies done in 1998 & 1999, the prevalence rate of HIV infection among pregnant women was between 0.032% and 0.055%. These figures are comparable to that in UK and Malaysia. It can be concluded that HIV related pregnancy is not very uncommon in Hong Kong. As the current local antenatal care system does not including HIV antibody testing, majority of them will be missed.

Learning points:

Detection of HIV related pregnancies antenatally proves to be invaluable in the prevention of maternal-to-child-transmission of HIV.