Prevention and therapy of actinic keratoses and basal cell carcinoma

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Date: 11 September 2007
Venue: Sheraton Hotel, Hong Kong
Speaker: Professor Eggert Stockfleth
Department of Dermatology
University Hospital of Berlin
Berlin, Germany
Organiser: Hong Kong Society of Dermatology and Venereology

The seminar was divided into two sessions. In the first session, the speaker talked about the prevalence, pathogenesis, treatment and prognosis of basal cell carcinoma (BCC). Basal cell carcinoma was defined as a malignant tumour which composed of cells similar to those in the basal area of the epidermis and its appendages. In 2003, there were at least one million BCC cases in United States and BCC was the most common non-melanoma skin cancer. It was postulated that mutations in Patched-1, Smoothened and GLI-1 genes lead to the development of BCC. Surgical excision remains the mainstay curative treatment. However, follow up surveillance is very important as evidence suggests that majority of the BCC recurrence will present within 5 years of treatment, and up to 18% will recur after this period. Therefore, a long-term, and even lifetime follow-up, particularly for patients with high-risk or multiple lesions was recommended by the speaker.

In the second session, the speaker discussed the epidemiology, pathophysiology, treatment and prevention of actinic keratosis (AK). It is estimated that 6% of population in UK, 11-26% of American and 37-55% of Australian have AK. The incidence of AK is extremely high and AK is the most frequent cancer for male. Immunosuppression and resistance to apoptosis are the two major events in early phase of neoplastic progression in the skin. Therefore, the risk factors for development of AK include cumulative UV exposure, genetic disorders like xeroderma pigmentosum and immunodeficiency. Moreover, there is a 250 fold higher risk to develop AKs in organ-transplant patients. Studies also showed that approximately 10% of AK patients and about 40% of immunosuppressed patients developed an invasive SCC.

Lesion-directed therapies are the mainstay of treatment in AK. The speaker mentioned a few of them which have their own merit and disadvantages. Cryotherapy is the most common treatment for single or multiple AKs. A study showed that the complete response rate of AK was around 75-98%, but the recurrence rates were between 1.2 % and 12 % after one year follow up. Blistering, scarring, hypopigmentation and hyperpigmentation are the main side-effects.

Photodynamic therapy (PDT) selectively destroys the abnormal cells by using lipophilic photosensitiser agent such as methyl aminolevulinate (MAL). The complete response rate of PDT is around 70-90% after one to two treatments and it offers significant better cosmetic results than cryotherapy. Ablative laser is another treatment option and its effect is comparable to cryotherapy. The complete remission rate is around 90% and the recurrence rates are 10-15%. Topical imiquimod, 5-fluorouracil and diclofenac in hyaluronic acid gel have been used in treatment of AKs but their efficacy is no better than cryotherapy.
Prevention is of utmost importance in managing AK, which includes educating patients about UV-protection, self-examination and detection of early lesions. Photo-protection measures like the frequent use of sunscreen (SPF>20 and UVA-protection), avoiding sun exposure during mid-day and wearing of sun-impermeable clothes and hat are strongly recommended by the speaker.

**Learning point:**
Most evidence suggests that the majority of BCCs that recur will present within 5 years of treatment, up to 18% will recur after this period. Long-term or even lifetime follow-up, particularly for patients with high-risk or multiple lesions, is recommended. UV radiation remains the major risk factor for AK. Frequent use of sunscreen of SPF at least 20 is an important preventive measure.

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**Announcement**

**Application for Annual / Exit Assessment, June 2008**

**Specialty Board of Dermatology & Venereology**

**Hong Kong College of Physicians**

Please be reminded that the application for the Annual / Exit Assessment, June 2008 is now open to the eligible candidates, who should be:

1. Registered trainees in Dermatology & Venereology, Hong Kong College of Physicians
2. Qualified for / will be able to qualify of the Annual / Exit Assessment by 30 September 2008

Those who wish to attend the Assessment should complete the Higher Physician Training (HPT) Annual Assessment Application Form / Higher Physician Training (HPT) Exit Assessment Application Form plus Testimonial, to the Examination Co-ordinator of the Specialty Board of Dermatology & Venereology in January 2008. Late applicant will not be able to sit for the assessment.

Dr. TANG Yuk-ming
Chairman
Specialty Board (Dermatology & Venereology)
Hong Kong College of Physicians