

Skin Spots *and* Lesions

Diagnosis and Management of Skin Cancers

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Skin cancers are the eighth most common cancer in Singapore (Singapore Cancer Registry 2004-2008). It can be caused by many factors including excessive sunlight exposure and a decrease in a person's immune system. In recent times, there has been a rising trend in the incidence of skin cancers, likely from an increase in sun-seeking behaviour or activities, coupled with increasing life expectancies in our population. Often times, potential skin cancers may present early in its precancerous or *in-situ* form.

Actinic Keratosis

An example of a precancerous lesion is actinic keratosis [Figure 1]. This commonly presents as persistent scaly brown spots that do not go away on sun-exposed areas, ie face, scalp, forearms and dorsum of hands. Histologically, dysplastic keratinocytes are found only in a portion of the epidermis. Treatment of these lesions include physical destruction (eg, by liquid nitrogen or photodynamic therapy), topical chemotherapy (eg, 5-fluorouracil cream), and topical immunotherapy (eg, imiquimod cream). There is a small risk of actinic keratoses (AK)

evolving to become squamous cell carcinomas (SCC).

Bowen's Disease

When the dysplastic keratinocytes involve the full thickness of the epidermis, the lesions are termed Bowen's disease or SCC-*in-situ* [Figure 2]. These present as a solitary raised plaques that may persist for years. Eventual evolution to SCC is often seen, although the time interval at which this occurs varies in different individuals. Complete surgical excision is the gold standard treatment. Therapeutic modalities employed in the treatment of AK are effective as well for Bowen's disease if surgery is not desired or to be avoided. As the dysplastic cells involve the whole epidermis, curettage and cautery is also useful in its treatment.

Squamous Cell Carcinoma

Full-blown SCC [Figure 3] is distinguished by tender fleshy, rough nodules or plaques that often bleed easily. Apart from sun-exposed sites, SCC can be found on the legs of elderly patients, especially in the background of chronic wounds or ulcers. Potential local invasion of surrounding tissues



Figure 1. Actinic keratosis



Figure 2. Bowen's disease



Figure 3. Squamous cell carcinoma



Figure 4. Basal cell carcinoma



Figure 5. Basal cell carcinoma



Figure 6. Melanoma-in-situ



Figure 7. Melanoma at the back



Figure 8. Acral melanoma

by SCC warrants early and complete excision of the tumour with margin control. Regional lymph nodes should also be palpated regularly post-surgery and any suspicious nodes should be biopsied. In our local population, metastatic SCC is still an uncommon occurrence.

Basal Cell Carcinoma

Another form of skin cancer is the basal cell carcinoma (BCC) which represents the commonest form of skin cancer in human beings. As the name implies, it originates from the basal cells of the epidermis. In Asians, the pigmented variant of BCC is most commonly encountered [Figure 4]. In Caucasians, however, the presentation of different subtypes of BCC (eg, superficial, nodular or morphoeic subtypes) may be clinically more subtle [Figure 5]. The aid of a dermatoscope may be helpful in raising the index of suspicion in these cases. Complete excision with margin control is the treatment of choice for BCC. In special instances where tissue sparing is desired, Moh's micrographic surgery is useful. For certain less aggressive subtypes of BCC, eg, the superficial variant, treatment with topical imiquimod cream or curettage and cautery may be satisfactory.

Malignant Melanoma

One of the most aggressive and potentially life-threatening skin

cancers is malignant melanoma. It originates from melanocytes, which are found in the basal layer of the epidermis. Occasionally, one may catch it in its early stage, ie, melanoma-in-situ [Figure 6]. As this precursor nearly always evolves to malignant melanoma, surgical excision with margin control is the treatment of choice. Malignant melanomas can present in any location, eg, the back [Figure 7]. In Asians and dark-skinned races, melanomas occurring on the palms and soles [Figure 8] are usually missed by patients and doctors, resulting in a late presentation and poorer prognosis. Wide local excision is the treatment of choice for melanomas. Histological examination of the excised tumour is of utmost importance to determine the depth of invasion (Breslow's index) of the melanoma cells as this has great bearing on the overall prognosis. Additional investigations, eg, sentinel node biopsy, computed-tomography (CT) scan or positron-emission-tomography (PET) scans, to detect metastases may be warranted on a case-by-case basis. Chemotherapy may be required in cases of metastatic melanoma. Currently, trials on new chemotherapeutic agents are underway to determine their efficacy in the treatment of melanoma. **MD**



Dr Lim Kar Seng is a consultant dermatologist with Dermatology Associates since 2010. His subspecialties are in skin cancers and psoriasis. Dr Lim pursued his special interest in skin cancers at the Victoria Skin and Cancer Foundation, Australia. He also did research and was involved in the care of psoriasis patients at St Vincent's Hospital, Melbourne. Prior to joining Dermatology Associates, Dr Lim was a consultant dermatologist in the skin cancer unit and the psoriasis unit at the National Skin Centre, Singapore. In addition, he was a clinical tutor at the Faculty of Medicine, National University of Singapore.