Basal cell carcinoma

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This is usually a slow-growing, locally invasive, malignant tumour of pluripotential epithelial cells arising from basal epidermis and hair follicles; hence, it a ff ects the pilosebaceous skin. Summary box 45.2 Basal cell carcinoma /uni25CF /uni25CF /uni25CF /uni25CF - Epidemiology The strongest predisposing factor to BCC is UVR. It occurs in the elderly or the middle-aged after excessive sun exposure, - with 95% occurring between the ages of 40 and 80 years. The incidence of BCC rises with proximity to the equator, although 33% arise in parts of the body not usually exposed to the sun. Other predisposing factors include exposure to arsenical compounds, coal tar, aromatic hydrocarbons and IR , they and genetic skin cancer syndromes. White-skinned people are almost exclusively a ff ected. BCC is more common in men than in women. Pathogenesis BCCs have no apparent precursor lesions and their develop - ment is proportional to the initial dose of the carcinogen, but not duration of exposure. The most likely model of patho - mal factors as intrinsic genesis for BCCs involves mesoder promoters coupled with an initiation step. BCCs metastasise extremely rarely . Macroscopic BCCs can be divided into localised (nodular, nodulocystic, cystic, pigmented and naevoid) and generalised (superficial: multifocal and superficial spreading; or infiltrative: morphoeic, ice pick and cicatrising). Nodular and nodulocystic variants account for 90% of BCCs. Microscopic Twenty-six histological subtypes have been described. The characteristic finding is of ovoid cells in nests with a single

Slow growing Risk factor – UVR 90% nodular/nodular cystic High- and low-risk BCC

divide, explaining why tumour growth rates are slower than their cell cycle speed would suggest and why incompletely excised lesions are more aggressive. Morphoeic BCCs synthe sise type 4 collagenase and so spread rapidly (Figure 45.30 Frederic E Mohs , 1910–2002, American physician and general surgeon, University of Wisconsin, Madison, WI, USA, developed Mohs' micrographic surgical technique in 1938 for cutaneous malignant lesions. Jean-Nicolas Marjolin , 1780–1850, surgeon, Paris, France, described the development of carcinomatous ulcers in scars in 1828. There are 'high-risk' and 'low-risk' BCCs. High-risk BCCs: are large (>2 /uni00A0 cm); are located at sites where direct invasion - gives access to the cranium (near the eye, nose and ear); are). recurrent tumours; are tumours forming in the presence of immunosuppression; or have micronodular or infiltrating histological subtypes. Management Treatment can be surgical or non-surgical. Tumour and surrounding surgical margins should always be assessed and marked under loupe magnification, the latter varying between 2 and 15 /uni00A0 mm depending on the macroscopic variant. Where margins are ill-defined or tissue is at a premium (nose, eyes), either a two-stage surgical approach with subsequent recon - struction after confirmation of clear margins or Mohs' micro - graphic surgery is advisable. The histological sample must be orientated and marked for pathological examination. Mohs' micrographic sur gery is a method used by derma - tological surgeons (dermatologists who have undergone extra training in techniques of cutaneous surgery and histopathol - ogy) to excise skin cancer under microscopic control. In elderly or infirm patients,

radiotherapy produces simi - lar recurrence rates to surgery , but with the risk of generating further malignancy after one to two decades. Biopsy-proven, superficial tumours can be treated with topical treatments (5-fluorouracil, imiquimod). Unless excision of a BCC is complete, there is a 67% recur - r ence rate if margins are grossly involved and a 33% recur - rence rate within 2 years with microscopic involvement or when reported ‘close’. Patients with uncomplicated, completely excised lesions can be discharged. Follow-up is reserved for patients with tumours in high-risk ar eas; for those with globally sun-damaged skin; for those with syndr omes; and for those who decline further surgery after incomplete excisions.

(a) (b) (c) Figure 45.30 (a) A nodulocystic basal carcinoma (BCC). Note the characteristic pearly surface with telangiectasia. (b) An ulcerating BCC on the lower eyelid. (c) A recurrent morphoeic BCC. (courtesy of Mr AR Greenbaum; (c) courtesy of St John’s Institute for Dermatology, London, UK.)

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