Tumoral Melanosis

Complete regression of a dermal based tumour with replacement by pigment-laden histiocytes is known as tumoral melanosis. It is typically observed following regression of an invasive melanoma, but occasionally it may also be seen in the setting of squamoproliferative tumours such as squamous cell carcinoma. Tumoral melanosis presents clinically as a darkly pigmented papule or nodule. Histologically, it is characterized by a nodular proliferation of epithelioid to polygonal histiocytes containing abundant cytoplasmic melanin. A background of a lymphocyte rich chronic inflammatory cell infiltrate containing varying numbers of plasma cells and/or eosinophils is frequently present. The process primarily affects the dermis but extension into subcutis may also be seen.

Tumoral melanosis is an important but frequently under recognized phenomenon and it may pose a significant diagnostic pitfall as it is easily mistaken for deep penetrating naevus, epithelioid blue naevus, pigment synthesizing melanoma of malignant blue naevus.

Clues to the correct diagnosis are the nodular architecture and sheet-like growth with lack of cytological atypia or pleomorphism. Most importantly, there is absence of S100, HMB-45 and Melan A expression by immunohistochemistry. A careful search for a pre-existing tumour within the specimen is however necessary. It may readily be missed due to the prominence of the inflammatory cell infiltrate and the degree of melanin pigmentation.

References


4. Ng SH, Chave TA. Tumoral melanosis as a manifestation of a completely regressed primary melanoma with metastases. *Br J Dermatol* 2006;155;627-628.