DERMATOPATHOLOGY

CUTANEOUS EPIDERMOTROPIC METASTASIS OF AN ESOPHAGEAL SQUAMOUS CELL CARCINOMA: WOUND HEALING AND TRANSEPIDERMAL ELIMINATION AS POSSIBLE MECHANISMS FOR EPIDERMOTROPISM

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Background: Cutaneous metastasis is usually confined to the dermis or subcutaneous tissue. Transepidermal elimination has been previously discussed as a probable mechanism for epidermotropism.

Observation: A 57 year-old male presented to our dermatology outpatient department with a scalp nodule for one week. He had a history of esophageal SCC, stage T3N0M1 and had undergone total esophagectomy and radiotherapy eight months previously. Excisional biopsy revealed moderately differentiated metastatic SCC (Fig.1). Six weeks later, the patient returned due to recurrence of the scalp lesion into a 2-cm erythematous nodule. Repeat excisional biopsy revealed a dense infiltrate of tumor cells arranged in lobules, most within dilated lymphatic spaces, extending through the entire thickness of the dermis (Fig.2a-c). Epidermotropic neoplastic cells were found concentrated adjacent to an area of epidermal ulceration. The ulceration was connected to the deep dermis via a tract filled with tumor cells. It therefore appears that the epidermotropic neoplastic cells may have migrated to the epidermis via the dermal tract. These epidermotropic tumor cells were arranged as nests and as single Pagetoid cells (Fig.2d). One month later, bone metastasis was found and chemotherapy started. The patient however expired 4 months after presenting with the scalp nodule.

Key Message: Majority of the epidermotropic cells were found adjacent to a central epidermal ulceration connected to a deep dermal tract. The central epidermal ulceration could have been the initial biopsy wound. It is therefore possible that wound healing might have played a role in enhancing or initiating the transepidermal elimination mechanism involved in cutaneous epidermotropic metastasis. Epidermotropic metastasis and transepidermal elimination are both very rare but interesting histopathological manifestations. However, literature on these topics is limited. More case reports and discussions on these areas are needed to facilitate further understanding of their pathophysiology.