High risk squamous cell carcinoma

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Case study

Mrs MA, 70 years of age, has a history of scalp psoriasis dating over 10 years. She explained that the rash was slowly progressing and had failed to respond to an array of topical treatments offered (*Figure 1*).

Within the right lateral aspect of the 12 x 14 cm lesion a thick nodule had recently developed. It looked like squamous cell carcinoma (SCC). Biopsy of the raised lesion confirmed SCC as did four other biopsies at the poles of the region of 'psoriasis'. Removing all surface debris confirmed this was one confluent scalp tumour (*Figure 2*).

The large scalp SCC was excised with a 5 mm margin. During surgery there was an area of apparent involvement of galea. This layer was widely excised along with periosteum at that point. Histology confirmed complete excision. There was no other point at which deep levels were involved. Periosteum was not involved.

The large defect was closed with a partial thickness skin graft (*Figure 3*) harvested from the right anterior thigh (*Figure 4*).

Mrs MA was assessed by the multidisciplinary head and neck team. Computerised tomography (CT) scans revealed cervical nodes that were not considered significant. She was considered for radiotherapy given the increased risk of metastasis associated with such a large long standing SCC. She was not keen on any further intervention and this wish was respected.

Twelve months postsurgery there was no sign of local or regional recurrence. Mrs MA will have a permanent unsightly graft of skin covering most of the top of her scalp (*Figure 5*). She routinely wears a hat to cover the thin bald patch. (However, as she was wearing a hat for over 10 years to cover her psoriasis, this does not worry her and she is now quite accustomed to it.)

Summary of important points

- If a skin condition does not respond to management as expected, biopsy the region rather than continue with the unsuccessful treatment. An unexpected malignancy may be identified.
- Partial thickness skin grafts are generally reserved for the largest of defects where other closures can be problematic. These grafts are invariably unsightly and lack the character of normal skin.

Figure 1. Scalp of presentation showing debris and matting of hair

Figure 2. Scalp with surface material removed showing large SCC

Figure 3. Scalp following wide excision of SCC and application of partial thickness skin graft

Figure 4. Partial thickness skin graft donor site on anterior right thigh

High risk SCCs

Some cutaneous SCCs are recognised as at increased risk of developing metastatic disease. Most metastases occur within 2 years and 95% have occurred within 5 years. Surgery and adjuvant radiotherapy provide the best chance of achieving locoregional control.[1] Risk factors for metastases from cutaneous SCC are:

- recurrence[2–4]
- large tumours (>2 cm)[2,3]
- perineural involvement[2,3]
- poorly differentiated tumours[2,3]
- tumours infiltrating well into or beyond the dermis[3,5,6]
- renal (and other) transplant patients[7,8]
- immunosuppressed patients[3,8]
- tumours located on ear[3,9,10,] lip,[3,9–11,] eyelid[12] or sites that get no light.[3,13]

Figure 5. Thin bald graft 12 months postsurgery

- Radiotherapy is problematic in this situation, as split grafts do not tolerate radiation as well as full thickness skin. Chronic poor healing can result.
- Patients with large tumours on the head can benefit from the collective experience and opinions of skin surgeons, radiation oncologists, ENT surgeons and medical oncologists.

Conflict of interest: none declared.

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