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Case Report

Case series: Rapidly growing squamous cell carcinoma after cutaneous surgical intervention☆

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ABSTRACT

The development of squamous cell carcinoma in sites of split skin graft harvest is a rare complication with only 12 documented cases in the literature. The growth of squamous cell carcinoma after arterial puncture is a rarer phenomenon, with no previous cases documented.

This series describes two cases. The first case is of a 70-year-old male who developed rapidly growing squamous cell carcinoma in a graft donor site, 9 weeks after split skin graft repair of pretibial squamous cell carcinoma excision. The second case is of an 84-year-old male who developed a large exophytic squamous cell carcinoma in the right wrist that developed 5 months after radial artery puncture.

This case series explores the various mechanisms of de-novo squamous cell carcinoma development in areas of cutaneous surgical intervention, including graft harvest. It also provides recommendations regarding the necessary precautions to avoid implantation of squamous cell carcinoma into distant sites. Lastly it highlights the importance of surveillance for any suspicious lesions arising from areas of previous cutaneous surgical intervention.

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Case report 1

A 70-year-old man was sent by his general physician for excision of multiple lesions in both legs. These lesions were consistent with squamous cell carcinoma (SCC). He noted these lesions grew after injury to pre-existing patches of thickened skin. He had significant sun exposure during his career as an electrician. He had no history of previous cutaneous or any other neoplasm. His examination revealed a total of five exophytic lesions on the pretibial aspect of both legs. Each lesion ranged in size from 15 × 10 mm to 20 × 18 mm with a maximum depth of 7 mm. Punch biopsy of each lesion pre-operatively confirmed the presence of well differentiated SCC or a squamous proliferative lesion. The five lesions were excised and repaired with a split thickness skin graft (STSG) harvested from his left thigh. The graft site was injected with local anaesthetic prior to injection of the sites of lesions to be excised. Graft harvest was with a dermatome and was performed after a change of gloves to minimise the chance of seeding.

The graft donor site was well healed at the time of discharge, with no evidence of new lesions. The recipient sites displayed satisfactory healing of the STSGs. The patient was reviewed in clinic 4 and 6 weeks post operatively. His assessment revealed well-healing grafts with only minimal skin loss. This was treated with appropriate dressing regimen. At clinic review 9-weeks post operatively, there was complete healing of the graft site; however, six hyper-granulating lesions were noted on the graft donor site [Figure 1]. Again, these consisted of nodules ranging in size from 5 × 7 mm to 15 × 10 mm. The patient underwent resection and primary closure of these lesions. Histopathology again revealed well differentiated SCCs with invasion to the mid dermis, with a maximum depth of 6 mm. There was no recurrence of these lesions at subsequent follow up.

Case report 2

An 84-year-old man, with an expanding exophytic lesion in the volar aspect of his right wrist, was referred by his cardiologist [Figures 2 and 3]. The lesion occurred 5 months after puncture of the radial

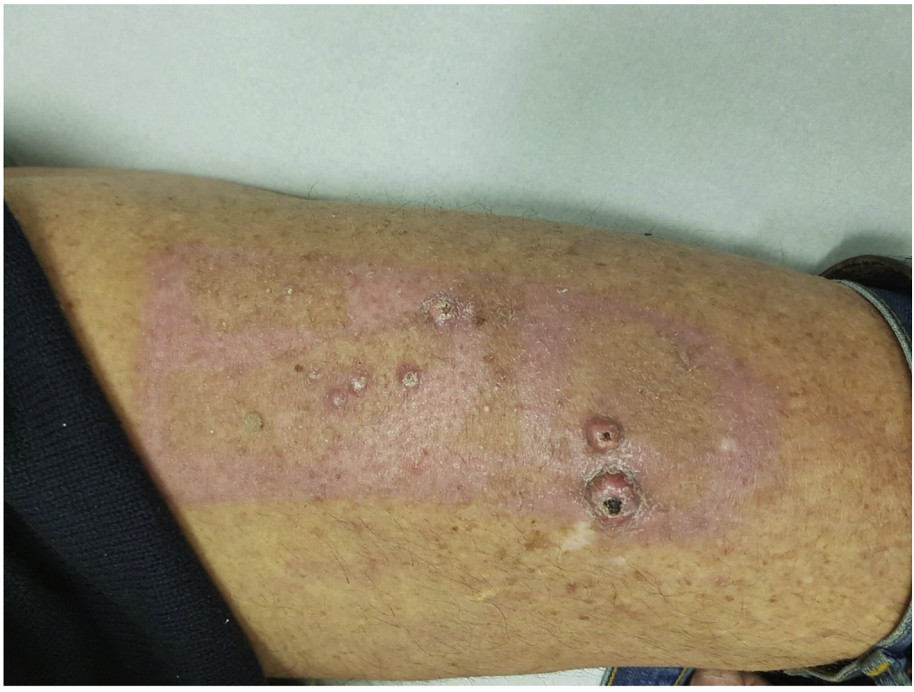

Figure 1. Photograph of patient's leg with six hyper-granulating lesions within donor site 9 weeks post STSG harvest.