Case summary demonstrating mechanical, then biological creep

History
This twenty-four-year-old male patient presented with a skin graft on his scalp, the result of excising a basal skin carcinoma. He was otherwise in good health. In this case, the ABRA Surgical and ABRA Adhesive Skin Closure Systems were used for pre-surgical skin expansion.


The skin graft as presented was 8 cm across. The plastic surgeon decided to use ABRA Surgical Skin Closure to pre-surgically stretch the surrounding skin to eventually excise the skin graft and primarily close the resulting defect.

As shown, the skin anchors immediately began re-approximating the wound edges. The patient however, found them to be painful, so adhesive anchors were added to the expansion regime at one week. It was found difficult to keep the skin anchors attached to the skin and therefore by Day 42 all were removed, leaving adhesive anchors for the remainder of the treatment.

By Day 77, despite the inherent inelasticity of the scalp, the margins had re-approximated to within 2 cm. The adhesive anchor stretching regime was largely managed by the patient under weekly supervision. The patient reported the regime to be comfortable. On Day 149, the anchors were removed in preparation for the excision of the graft and closure.

The entire graft was successfully excised. Small scars left by the skin anchors can be seen on either side of the wound.

The wound edges were fully re-approximated under minimal tension with a little more skin excised at each end to prevent skin folds. ABRA Adhesive Anchors were applied after the procedure to prevent wound dehiscence.

20 days after the closure, his hair was already beginning to hide the incision.