Post-burn cervical keloid treatment with surgical excision and reconstruction with a dermal substitute and split thickness skin graft

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Introduction:

Facial burns can lead to horrible sequelae. In this regard, keloids represent a difficult challenge for any physician. No single therapeutic modality alone has proven effective although surgical excision is frequently the mainstay of therapeutic protocols. Keloids are very resistant to treatment and have very high recurrence rates. We present a case report of a patient undergoing marginal extra-lesional excision of a massive cervical keloid (post-burn) associated with recurrent infections and a reconstructive strategy using a dermal substitute and skin graft.

Technique

A two-stage approach was followed. Keloid was completely excised down to normal subcutaneous tissue. A bilayer dermal regeneration matrix was applied to the entire wound. This was covered with a “tie-over” dressing with paraffin gauze and octenidine.

The second stage occurred 21 days later. The silicone sheet was removed and a split thickness skin graft applied to the neodermis. The patient used an elastic collar for the neck for post-surgical elastic compression.

Results:

Very good graft intake. Healing was uneventful and donor site morbidity was minimal. There were no signs of infection. The result was aesthetically acceptable and the patient was happy.

Conclusion:

The combination of split thickness skin graft with a dermal regenerative template seems to be very effective. It maintains the skin pliability with good cosmetic appearance and limited skin contracture.

Pre-Operative: right (A) and left (B) view

1st Surgical Stage: (A) Keloid excision. (B) Dermal regeneration matrix

2nd Surgical Stage: (A) After silicone layer removal. (B) Skin graft

Post-Operative : 6 months after 2nd Stage

Sources:

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