



KELOID MANAGEMENT STRATEGIES PRACTISED IN A TERTIARY CARE PRIVATE HOSPITAL IN INDIA

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ABSTRACT

Keloids are common cases in a Plastic Surgery Practice. Management of commonly occurring keloids in a Plastic Surgery practice in a tertiary care hospital is presented. Surgery with injection of Triamcinolone was adequate in controlling ear lobe keloids. Silicon gel sheet and pressure garments were other common adjuvant treatments advised. Multimodal treatment resulted in satisfactory control of keloids in most cases although recurrence is a possibility even in late postoperative period of more than one year. Novel treatment strategies should be evolved for managing this disfiguring and sometimes debilitating condition.

KEYWORDS :
INTRODUCTION:

Keloids are scars that grow disproportionately and typically overgrow the original wound edges. In some cases there may not be a recognizable history of trauma. The clinical characteristics are distinct from hypertrophic scars in most of the cases. Keloids occur in dark skinned individuals of African and Asian population. The exact etiopathogenesis of a keloid is still unknown although many theories have been proposed. The biology of keloids continues to raise questions about factors governing normal and abnormal wound healing. In this article, the experience of a single surgeon in the management of common types of keloids is discussed. Newer strategies may provide a better outcome in the future.

AIM:

To evaluate the efficacy of common treatment strategies practiced in the management of keloids.

MATERIALS AND METHODS:

Keloid scar patients seen by the author from March 2005 to March 2019 in his practice were reviewed. Total number of patients included in the review was 132. There were 62 Male patients and 70 female patients. Among the male patients the age group was 10- 67 years and among the females it was 9 to 58 years. The follow up ranged from 2 months to 9 years. The distribution of keloids according to sites was as follows-

Site of keloid*	Total number of cases	Male	Female
Ear lobe	62	12	50
Anterior chest wall	32	26	6
shoulder	10	7	3
face	4	4	0
Upper limb	8	6	2
Lower limb	16	7	9

*The predominant keloid site is mentioned in the case of a patient having multiple keloids

The commonest cause of ear lobe keloid was ear piercing trauma. The entire helical rim along with the lobule was susceptible. Ear lobe keloids were managed with intralesional excision with postoperative injection of triamcinolone. The Ear lobe keloids responded well with the above management. In all cases of excision of ear lobe keloid, the epithelial tract of ear piercing site was totally excised. A postoperative pressure earring was advised for all patients.

With this strategy recurrence was 15 percent which was controlled by triamcinolone with a recurrent intralesional excision. Two cases of recurrence after multimodal treatment was managed with low dose radiotherapy after reexcision.



FLORID KEOLOIDS IN A WOMAN

Chest wall keloids occurred after trivial trauma in most cases. All the chest wall keloids were treated with injection of triamcinolone for 3-5 doses. Good symptom control was achieved. Scar flattening was modest and patients were satisfied with improvement of symptoms. A large anterior chest wall keloid was excised followed by postoperative triamcinolone injection. Cryotherapy was used for three chest wall keloids and had a modest response. Injection triamcinolone was added in those cases.

Scars elsewhere in the face or shoulder or limbs were mostly treated with injection of triamcinolone. In all cases triamcinolone was injected in a dose of 40 mg/ml. Surgery followed by injection was done in 5 patients which had partial scar regrowth in 3 patients.



A. LARGE KEOLOID IN THE ANTERIOR CHEST WALL



B. RESULTS AFTER INTRALESIONAL EXCISION AND POSTOPERATIVE ADJUVANT TRIAMCINOLONE.

Compression therapy was employed whenever possible especially in the limb and chest wall keloids. Silicon gel sheet was used for most of the keloids except ear lobes. Here silicon gel was used.

DISCUSSION:

Some of the hypothesis of keloid formation include a defect in apoptotic genes in the wound which leads to a defect in the normal stop signals in wound healing, altered TGF- β regulation of the proopiomelanocortin gene expression in the keloid fibroblast and abnormal keloid keratinocyte responses¹.

There is no uniformly successful treatment in the management of keloid². Each patient responds in a particular way and multimodal therapy has to be decided on a case to case basis. The common reasons for the patient to seek intervention include disfigurement, pain and itching in the scars. Sometimes the keloid can have buried skin and may present with an infection requiring an incision and drainage. A short course of antibiotic therapy is required to tide over the period and followed with definite treatment when the infection settles fully.

Excision and primary closure alone has a high recurrence and hence is always supported with adjuvant therapy³. Commonly injection of triamcinolone is given. Doses suggested vary from 10mg/ml to 40 mg/ml. In our practice we have used 40 mg/ml strength. In children

less than 18 years of age 10 mg/ml was used. Steroids can cause skin hypopigmentation or telangiectasia and hence any unwanted doses are avoided.



EAR LOBE KELOID EXCISION AND PRIMARY CLOSURE AND INTRALESIONAL TRIAMCINOLONE

Low dose (20 Gy) Radiotherapy was recommended for two cases who had early recurrence in spite of careful technique of intralesional excision. Radiotherapy was instituted within 24 hours of Reexcision. Silicon gel sheeting was used whenever feasible. Pressure garment was given in all cases of limb keloids and sometimes in large chest wall keloids.

TGF beta family of growth factors are intimately connected with scar biology¹. Newer Adjuvant treatments mentioned in the literature are Nd YAG laser⁵, pulsed dye laser treatment, antitumour or immunosuppressive agents like Interferons, 5 Fluoro uracil, bleomycin. The interferon used was IFN alpha 2b as postoperative intralesional injections. 5Fluorouracil or bleomycin given intralesionally are also found to be effective. Systemic adverse side effects are to be taken into consideration before administering these agents. These anti tumour or immunomodulators were not used in our series.

Experimental areas include gene therapy and wound healing research may provide new insights into keloid scar biology.

CONCLUSION:

Keloidal scars are common in Plastic Surgical practice and each patient presents a different challenge. Most keloids can be successfully managed with Excision with adjuvant therapy commonly intralesional Triamcinolone. Rerecurrence cases may need Radiotherapy in the post operative period. Multimodal treatment is the current standard of practice in controlling keloids.

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