

## **Keloid Still a Challenge?**

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### **ABSTRACT**

This is a prospective of study management and outcome of Keloid scar over a period of 24 months. Number of patients treated were 44 with minimum of 9 months follow up. Age group 7 to 50 years with mean of 28.5 years, female to male ratio 26:18 was observed. 16 patients had history of burn mostly flame burn then scald or hot liquid and one was post acid burn, 13 were post infective, 7 were post traumatic and 8 patients etiology was unknown. Treatment options include interalesional steroid, surgical excision and injection steroid and injection steroid with silicone gel and sheets application. Outcome based on reduction in size, decrease or no symptoms and signs and cosmesis of Keloid scar. Most of cases were treated with interalesional steroid alone, others with interalesional steroid with application of silicone, and only three cases were treated with surgical excision and injection of steroid. Performa was made for collection of data including Age, sex, etiological factor, body area involved, treatment option, follow up and out come. In all the patients' treatment option we applied injection steroid and with silicone gel application result were better, but number of patients who can afford silicone gel were less<sup>9</sup>. Thirty two patients who were treated with injection steroid only showed satisfactory result with cost effectiveness. Surgical excision with injection steroid was only 3 patients and proved not a satisfactory result.

**Key words:** Interlesional keloid, flame burn,

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### **INTRODUCTION**

A keloid can be defined as an outgrowth that manifests in the form of an abnormal scar. It occurs due to an excess growth of granular tissues. Hypertrophic scars and keloids very often result from burns and sometimes from minor injuries. It has been hypothesized that immunological mechanisms play a role in the pathogenesis of Hypertrophic scar and keloid. Immunoglobulins G, A, and M are extractable from keloid tissue in significantly greater amounts than from normal skin and eutrophic scars. Keloid fibroblasts may also be over stimulated by specific auto-antibodies (Reali et al, Annals 2000) of burns.

Compression, intralesional steroid injections, interferons, hyaluronic acid, lasers, cryotherapy, radiotherapy, and other treatments have obtained variable results. Surgical excision is followed by a high percentage of recurrences.

At present, a widely used non-invasive treatment for Hypertrophic scar and Keloid is the application of silicone sheets. However, the action mechanisms of this therapy still have to be clear. There is no single treatment that works in all cases. Methods of keloid scar treatment a doctor may attempt include steroids and surgery.

Treatment of keloid scar can be very frustrating for patients (Reali et al, Annals Sept 2000). Keloid

scar treatments are still being researched, and there are no definitive cures currently available for those battling the scars. Dermatologists and plastic surgeons are still exploring ways to both prevent and treat keloid scar. One of the newest advancements in keloid therapy is the use of lasers to decrease the size of the keloid and improve the color of scar.

### **MATERIALS AND METHODS**

In our study 44 cases data was collected on a Performa, including follow up and prognosis. Most of the cases (32) were treated with intralesional steroid (Trisimilone Acetate) alone, 9 with steroid and silicone gel or sheet and 3 with surgery and steroid. Data was collected on Performa in follow up session with prognosis.

### **DISCUSSION**

Treatment of Keloid is difficult and often unsatisfactory. The purpose of the present study was to evaluate the best way to treat with effective outcome and cost effectiveness and duration of treatment to characterize the possible modifications in the scar tissue.

Keloids treated with surgical excision and intralesional steroid were only 3 out of these 1 had no recurrence which was directly closed 2 cases were big enough to cover the defect with skin graft had recurrence over the margins.

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With surgical excision only, 60% of cases showed total recurrence in literature. These findings are consistent with data in the literature, which report a 45-100% recurrence after surgical treatment of Keloid.

But in our cases who had surgery and steroid injection showed minor recurrence which was only over the margins in two cases. One case which was excised and directly closed with steroid injection at same time developed no recurrence.

Compared with other postsurgical treatments to prevent recurrence of Keloid, silicone sheet application offers the advantage of being a noninvasive therapy. In contrast, intralesional steroid injections often cause pain and sometimes atrophy, hypopigmentation, teleangiectasia, the silicone sheets used in the present study were well accepted by the patients, and as they were adhesive they did not require the use of tapes. No side effects such as erythema, itching, or atrophy were observed.

The hypothesis of an active involvement of the skin immune system cells in the pathogenesis of Keloid. After silicone sheet application it was observed a partially recurring scar (less than 50% thicker than previously excised Keloid) characterized by a clearly lower amount of immune-cell infiltrate than in the initially excised lesion. The immunophenotypic features found in scars after the application of silicone sheets were more similar to those of eutrophic scars than to those of Keloid.

Out of 44 cases 32 were treated with interlesional steroid, one injection on 6 weekly basis showed the best result in case of cost effectiveness and patients satisfaction.

In literature that after the application of silicone sheets there is an activation of down-regulatory circuits, putatively driven by CD36+ dermal dendrocytes; with consequent production and discharge of specific cytokines possibly modulating fibroblast and macrophage activity.

In conclusion, adjuvant silicone sheet treatment after keloid excision was effective in reducing recurrences.

## RESULTS

The follow-up of the patients ranged from 9 to 24 months (mean 16.5 months). Surgical excision and steroid injection were only 3 patients and one patient had Keloid on dorsum of hand and forearm, only keloid over dorsum of hand with informed consent and one keloid over deltoid area were excised and defects were big enough to cover with skin grafts. Only one patient who had keloid behind left ear lobe was excised and directly closed. Two patients with excision of keloid and injection steroid with skin grafts

have some recurrence. One which was directly closed had no recurrence. 9 patients who had injection steroid and silicone gel application showed good result and Patients satisfaction. Thirty two patents who received only interalesional steroid showed good result, but steroid with silicone proved better.

So we concluded that still we can not say that there is the only one best option for every Keloid scar. It depends on the patient and affordability, site of lesion, and response of treatment. We would like to suggest the other centres dealing with same problem do prospective or retrospective study and to come out with better treatment.



Keloid dorsum of had & F A



Post excision & FTSG



Keloid Left Ear



Keloid deltoid region



Post excision & Thick SSG

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