

## Abstract

### **Intralesional Cryotherapy for enhancing the Involution of Hypertrophic Scars and Keloids**

Surface contact or spray cryotherapy has been shown to normalize the collagen in hypertrophic scars and keloids. It requires 1-20 treatment sessions and might produce severe pain, ulceration and permanent hypopigmentation. This present study was designed to assess the clinical safety and efficacy of Intralesional needle cryoprobe method in the treatment of these scars.

In the present study, 10 white patients between 3-54 year age with a total of 12 hypertrophic scars and keloids of more than 6 hrs duration were included. Under aseptic conditions, specially designed double lumen sterile cryoneedle were inserted into the long axis of the scar under local anesthesia. The 18-month trial evaluated the volume reduction of the scars under study by this method after a single session of Intralesional cryotherapy using liquid nitrogen. Objective parameters (Hardness and redness) and subjective complaints (pain/tenderness; itching/discomfort) were examined on a scale of 0 to 3 (a low score was better). Biopsies for histomorphometric study were taken from four patients, first from the pretreated scar, and then 1 month and 3 months post-treated scar to study the collagen fibers were studied after staining with picosirius red examined by polarization microscopy. The orientation of the collagen fibers before and after cryotherapy was evaluated using the fast Fourier transformation algorithm. The results were statistically analyzed using Wilcoxon test.

A significant reduction of scar volume, objective parameters and subjective complaints were achieved after a single intralesional cryotherapy. The ratio of red (mature) to green (immature) collagen fibers after picosirius red staining revealed significant reduction in post treated specimens as compared to that in pretreated biopsy specimen. The orientation index was also significantly higher (indicating more organized

architectural pattern of the collagen) in the post treated scar.

This study demonstrates that intralesional cryotherapy method under study was simple to operate and more efficient method of freezing scars with greater destruction of deep scar material.

Har-Shai Y, Amar M, Sabo E. *Plast Reconstr Surg* 2003;111:1841-1859.

### **Treatment of Keloids by surgical excision and immediate post operative single-fraction Radiotherapy**

The purpose of this retrospective study with up to 5-year outcome data of a single treatment team was to review the results of Marsden (Royal Marsden Hospital, UK) Protocol for treatment of Keloid. Participants (n=80) with age range 12-53 years (Mean 25) were treated for 80 keloids (59% females, 76% nonwhite patients) with majority of keloids located on earlobes (44%). The keloids were excised extralesionally, primary closure was done with 4-0/5-0 prolene suture (Ethicon, Johnson and Johnson, UK) and dressing was done with non-opaque, semi-occlusive poly urethane adhesive film (Opsite, Smith and Nephew, UK) after applying topical lignocaine hydrochloride and chlorhexidine gel. Adjuvant postoperative radiotherapy (60-kV or 100kV photon radiation at a 25-cm source to skin distance using 2 or 4-mm aluminum filter to give a greater half-value thickness of 1.7 or 4-mm aluminum) was given within 24 hours of surgery. Followup was done at 4 weeks, 3 months, 6 months, and then annually within one clinic. Recurrence was defined as pain, itching or obvious return of lesion. Analysis was by actuarial analysis for incomplete data sets. At 1 year 6 of 64 patients had experienced treatment failure (probability of control at one year, 91%). At 5 years, an additional 4 of 54 patients followed had relapsed (cumulative probability of control at 5 years, 84%). Authors conclude

that extralesional excision of keloid followed by early post-operative, single fraction of radiotherapy is both simple and effective in preventing recurrence at excision sites in high risk keloids that have failed prior treatment.

Ragoowasni R, Cornes PGS, Moss AL, Glees JP. Treatment of Keloids by surgical excision and immediate post operative single -fraction Radiotherapy. *Plast Reconstr Surg* 2003;111:1853-1859.

### **Recall dysfunction: Significance in the post-operative patient**

Cognitive dysfunction in the post operative patient has been reported showing incomplete recall of preoperatively discussed risk and complications. Very few patients recall every thing that was discussed before surgery and this was attributed to the perioperative amnesiac medicines and stress of surgery. This study was conducted on 27 healthy medical students to determine if a normal individual, who has not undergone surgery, has difficulties recalling accurately subject matter read 30 days previously. Each

of them were given two questionnaires related to the complication of abdominoplasty; second one 30 days after the first. Six of them did not respond to the questionnaires. First questionnaire was given and the possible risks and complications of the procedure were discussed. The second questionnaire, administered 30 days after first, required the subject to recall the possible risks and complications he or she had read before surgery. The result of the study demonstrated that 3.7% recall all risks and complications read 30 days previously. Seventy four percent of the healthy subjects recalled up to 50% of the total complications. This has an impact on the recall ability of patients post operatively when claims are made concerning lack of informed consent. To conclude, patient recall of informed consent discussions should be suspect as to its accuracy.

Shiffman MA. *International Journal of Cosmetic Surgery and Aesthetic Dermatology* 2003;5:23-26.

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