

Shaving of Xanthelasma Palpebrarum as a New Surgical Technique

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ABSTRACT

Aim: To determine the haemostatic effect and the benefits of this new technique as a surgical treatment of xanthelasma palpebrarum.

Patients and Methods: Twenty patients with xanthelasma palpebrarum underwent surgical excision of xanthelasma by shaving technique.

Results: Xanthelasma has been surgically removed in all cases with no noticeable operative bleeding.

Conclusion: Shaving of xanthelasma may be considered as a step in the direction of decreasing the complexity of surgical excision of xanthelasma.

INTRODUCTION

Xanthelasma palpebrarum is yellowish plaques occur commonly in the medial canthal areas of the upper and lower eyelids. They represent collections of lipid-laden macrophages in the superficial dermis. These benign lesions will continue to grow.

Usually, xanthelasma occur in middle aged or elderly patients with normal serum cholesterol levels, but they may occur in cases of hypercholesterolemia or disorders of lipid metabolism [1]. Patients often want to remove them for cosmetic reasons.

Xanthelasma can be treated by different methods [2-6]. Surgical excision of xanthelasma is the usual treatment of choice, bleeding and masking of the operative field is a problem always facing the surgeons, use of diathermy or compression of wound for haemostasis is always required.

PATIENTS AND METHODS

Twenty lesions of xanthelasma palpebrarum of 6mm vertical diameter or less and the horizontal diameter up to 15mm. The age of patients was ranged from 47 to 61 years. Fasting serum cholesterol and postprandial blood sugar levels were estimated in all cases.

Technique:

- 1- Injection of local anesthesia (1% xylocaine) beneath area of xanthelasma (Fig. 1).
- 2- The area of xanthelasma is pinched at its centre by toothed forceps, then it is surrounded and folded by straight forceps with serrated tips (Fig. 2).
Evaluation is done to avoid cicatricial ectropion.
- 3- Pre-placed two sutures 7/0 nylon are taken just posterior to the blades of forceps; each suture should be near the end of the fold.
- 4- The folded xanthelasma is shaved by a knife (blade 11 or 15) anterior and contact to the blades of forceps (Fig. 3).
- 5- Pre-placed sutures are tied (Fig. 4).
- 6- Extra sutures are taken if required, to approximate the two edges of wound.
- 7- The wound is covered by antibiotic eye ointment.
No eye patch or strips are required.
- 8- Post operative topical antibiotic and steroids eye ointment are prescribed twice daily for 2 weeks.
- 9- Sutures are removed on post operative 5th - 7th day (Fig. 5).

RESULTS

Xanthelasma palpebrarum has been surgically removed in all cases with no noticeable operative bleeding and diathermy has not been used in all cases.

There were no postoperative complications or eyelid dysfunctions in any case.

A slipped suture occurred only in one case on post operative 5th day, but there was no wound gaping and need no re-sutures.

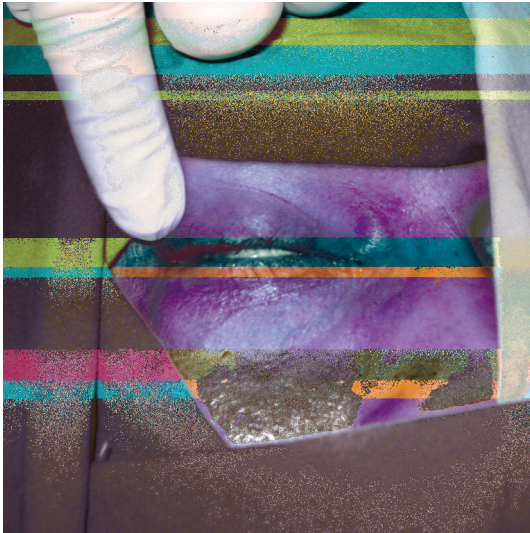


Fig. (1): Lower lid Xanthelasma.



Fig. (2): Xanthelasma is folded by forceps.



Fig. (3): Sutures are taken & Shaving of the folded xanthelasma.

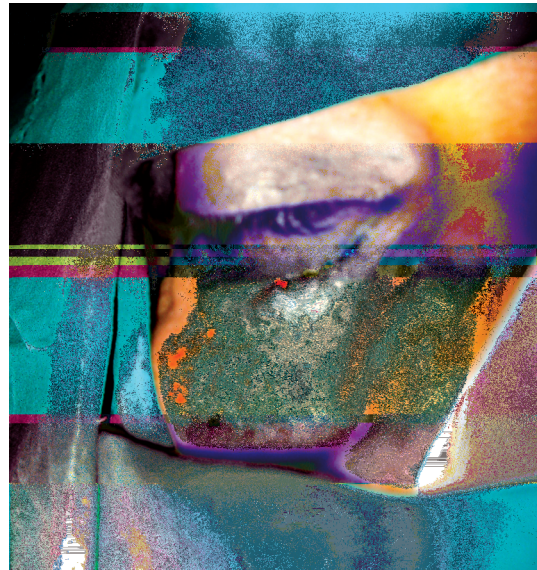


Fig. (4): Sutures are tied.

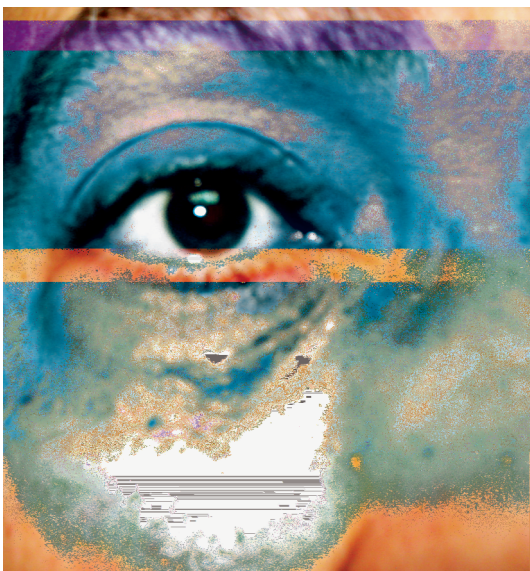


Fig. (5): Sutures are removed on 7th day postoperative.

DISCUSSION

Xanthelasma palpebrarum is the most common type of cutaneous xanthomas, which consists of asymptomatic, slightly raised, soft yellow papules or plaques on the eyelids [7].

Xanthelasma palpebrarum can be treated by different methods including application of trichloroacetic acid, cryosurgery and argon. Carbon dioxide laser vaporization has been used with some success. However surgical excision of xanthelasma is the treatment of choice.

The use of chlorinated acetic acid as a chemical cauterization has been found to be effective in the removal of xanthelasma. These agents precipitate and coagulate proteins and dissolve lipids.

Monochloroacetic acid, dichloroacetic acid, and trichloroacetic acid have been used with good results.

Haygood used less than 0.01mL of 100% dichloroacetic acid with excellent results and minimal scarring [4].

Nahas et al., have used 70% trichloroacetic acid (TCA) to remove xanthelasma in twenty-four patients with of up to one third of the affected palpebral area. The results were eleven patients (45.8%) had an excellent result, 8 (33.3%) had a good result, and 5 (20.8%) had a satisfactory result. The most common complication was hypopigmentation (33.3%) [5].

Cryotherapy can destroy xanthelasmas when they are superficial but may require repeated treatments, Cryotherapy may cause scarring and hypopigmentation.

Dewan et al., reported 100 cases of xanthelasma palpebrarum (237 lesions) were subjected to closed probe cryosurgery (Boiling point -89°C) with fifteen seconds freezing time. The number of freeze varied from 1 to 21 depending upon the number and size of the lesions. The procedure was done in a single session in all the cases. The results were small remnants mainly at the peripheral portions in 4 treated cases, secondary infection was observed (3%) after 1 week of the procedure. 6% cases also looked for pin head sized hypopigmentation in the centre of their treated lesions. 26 cases showed recurrences at the end of 6 months follow-up [6].

Carbon dioxide laser and argon laser ablation enhanced hemostasis, better visualization, lack of suturing, and speed have been cited are the reasons to use this technique; however, scarring and pigmentary changes can occur [2,3].

Ullmann et al., have used CO_2 laser for the treatment of 22 patients with xanthelasma palpebrarum. This office procedure done under local anesthesia, the lipomatous yellow plaques are accurately photovaporized in a bloodless field, layer by layer, until the lesion is totally eradicated. During follow-up periods varying from 15 to 54 months, pigmentation changes were noted in 5 patients, only 2 (9%) patients had recurrences, which were retreated successfully [2].

Argon laser photocoagulation represents an alternative treatment in selected cases.

Basar et al., have reported forty eyelids of 24 patients with xanthelasma were treated in 1 to 4

sessions at 2-3 week intervals, using an argon green laser. The laser parameters were as follows: wavelength 514nm; spot size 500 microns; energy 900mW; the duration of the laser pulse 0.1-0.2 seconds. The procedure was done on outpatient basis. A gauze pad soaked in topical anesthetic eye drops was applied to the surface of the lesion. There were no complications and no functionally relevant scar developed. The cosmetic outcome was considered to be good in 85% of the cases [3].

Surgical excision of xanthelasma is the treatment of choice. For small lesions, full-thickness excision is recommended, excision of larger lesions risks eyelid for ectropion. Large bulging lesions can be uncapped and removed; then, the flap can be replaced and sutured. Doi recommends using a surgical microscope, undermining between the tumor and the orbicularis oculi with an 11 blade, raising the flap and carefully removing the tumor piece by piece with microscissors from the reverse side, and then suturing the flap with 7-0 nylon. This technique was performed for seven cases of xanthelasma. The recurrence of the tumor was seen only in two cases, which were complicated with hypercholesterolemia. No recurrence was observed after a secondary operation and with the use of anti-hypercholesterolemic drugs. Large xanthelasma can be treated by this new surgical technique without extra skin excision with the best possible cosmetic results [8].

In the current study, a serrated-tipped forceps is used to fold the xanthelasma, to prevent the slipping of skin and subcutaneous tissue during shaving of xanthelasma. The used forceps is straight and not a curved forceps, to avoid bulldog ear disfigurement after suturing the wound.

The forceps has an essential role during shaving of xanthelasma, it gives haemostatic operative field resulting in better visualization and a very sharp edges of wound.

The pre-placed sutures before shaving of xanthelasma keep the axis of tissue loss, resulting in a minimal postoperative scarring and preventing the disfigurement of wound by taking sutures after excision.

Nylon sutures 7/0 are used to decrease the tissue reaction and scarring.

Shaving of the folded xanthelasma by a knife anterior to the blades of forceps results in sharp approximated edges of the wound, so minimal

numbers of sutures are required, even smaller area of xanthelasma needs no sutures after its excision, resulting in a minimal scarring.

Conclusion:

This new surgical technique 'Shaving of xanthelasma palpebrarum' offers the following advantages; minimal tissue trauma, haemostatic effect and better visualization of the operative field, minimal or no sutures are required and less time consuming, in addition to minimal postoperative scarring.

The final criteria for selection of proper cases for shaving of xanthelasma have not yet been established, especially the larger area of xanthelasma. Further studies are needed to determine the preoperative factors that limit the application of this technique. Currently, it is felt that cases having no ectropion on folding of xanthelasma by forceps before shaving, could be safely operated by this technique.

Shaving of xanthelasma is a simple surgical technique and may be considered as a step in the direction of decreasing the complexity of surgical excision of xanthelasma.

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