

## Rare and Unusual Presentation of Periorbital Xanthelesma

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**Abstract:** This report presents a sixty years old female with unusual appearance of bilateral Xanthelesma palpebrarum of periorbital region. These lesions were approximately 7cm x 3cm in dimensions. Patient's main complaints were aesthetic appearance and hindrance in downward gaze. Considering the size of the lesions surgical excision was planned and the raw area covered full thickness skin grafts from supra clavicular region. The aesthetic and functional outcome was good. The aim of this case report is to put forward an unusual presentation of Xanthelesma. At the same time to keep in mind the surgical excision with full thickness skin grafting as an excellent treatment modality for periorbital Xanthelesma palpebrum, especially in large lesions where other modalities have their own limitations.

**Keywords:** Periorbital region, Xanthelesma palpebrum, Gaze, Skin graft, Supraclavicular region.

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### I. Introduction

1. Xanthelasma palpebrarum is the most common form of xanthoma. The lesions appear as yellowish, flat and soft and are located mostly at the medial angle of the eyelid.
2. Although xanthelasma is a benign condition and almost never limits functioning, its appearance is often seen as cosmetically disturbing. Surgical excision has been the treatment of choice for decades.
3. Recently, several case reports have described the successful treatment of xanthelasma with the carbon dioxide laser and Q-switch Nd-YAG.
4. Alternatives to this treatment is cauterization with trichloroacetic acid, liquid nitrogen, or organic and nonorganic acids. However, all of these methods bear multiple sittings and considerable risks of side effects. The therapeutic effect of chemical measures is often unsatisfactory.
5. The depth of tissue penetration by the chemicals is hardly controllable, the risk of damage to the conjunctivae or the sclerae is high.

### II. Case Report

A 65-year-old female presented in our outpatient department with chief complaints of yellowish papular lesion in the periorbital region of both the eyes since five years. The lesions first appeared as small, slightly elevated plaques which were well circumscribed on the inner canthi of the lower eyelids. The lesions gradually increased in size. On local examination the size of the right infraorbital lesion was 7x4 cms and left infraorbital lesion was 6x4 cm.

Rest of the physical examination was normal with no similar lesions elsewhere on the body. Routine investigations including complete haemogram and urine analysis were normal. Lipid profile was within normal limits. The differential diagnosis based on the clinical profile was xanthelesma, scleroderma and neurofibromatosis. Due to unusual appearance of the lesions, the definitive diagnosis was arrived at by tissue biopsy. The histopathology showed localized collection of histiocytes with foamy vacuolated cytoplasm, few lymphocytes and neutrophils in the dermis. Touton's type giant cells were also noted.

After thorough counseling of the patient and considering the cosmetic and functional complains, we planned the surgical excision of the lesions and resurfacing of the defect with full thickness skin graft. The full thickness skin grafts were harvested from supraclavicular region to provide good colour match. The check dressing was done after a period of 7 days.

There was complete graft take. Patient was followed upto eighteen months with satisfactory outcome and no complications.

**Preoperative Case Photo-**



**Intraoperative Photo-**



**Postoperative Photo-**



**III. Discussion**

Xanthoma are lesions characterized by accumulation of lipid-laden macrophages. They can be a reflection of lipid metabolism alteration or a result of local cell dysfunction.

Xanthelasma palpebrarum is the most common of the xanthomas. A xanthelasma may instead be referred to as a xanthoma when it is larger and nodular, assuming tumorous proportions. [1]

It presents as an asymptomatic, usually bilaterally symmetric soft, velvety, yellow, flat, polygonal papules around the eyelids. They are common in people of Asian origin and those from the Mediterranean region. Xanthelasmas are most common in the upper eyelid near the inner canthus. Usually, the lesions evolve for several months and enlarge slowly from a small papule. Xanthelasma may be associated with hyperlipidemia in which any type of primary hyperlipoproteinemia can be present.

Some secondary hyperlipoproteinemias, such as cholestasis, may also be associated with xanthelasma. Papular xanthomas are normolipemic, nonconfluent, eruptive xanthomas located on the face, trunk and mucous membranes with no internal involvement. The colour of the patches and its appearance near the eyelids are enough to diagnose the condition. However, sometimes the appearance resembles with other skin disorders like milia, syringoma, scleroderma or neurofibromatosis.

The diagnosis in a confounding case can be confirmed by tissue biopsy. Histologically, it is characterized by a regular epidermis and a dense distribution of the xanthomatized macrophages interspersed by numerous Touton's type giant cells.[2],[3]

Many people find this form of the condition particularly embarrassing and disfiguring, hence opt for removal of the lesion.

Due to its delicate location near the eye and the high recurrence rate, the therapy of xanthelasma palpebrarum is a difficult surgical task.[4],[5] The "classical" treatment option for xanthelasma palpebrarum is the surgical excision.

Alternatives to this treatment are cauterization with trichloroacetic acid, liquid nitrogen, or organic and nonorganic acids. However, all of these methods bear considerable risks of side effects. The therapeutic effect of chemical measures is often unsatisfactory.

The depth of tissue penetration by the chemicals is hardly controllable; the risk of damage to the conjunctivae or the sclerae is high. Some groups have reported about the treatment of xanthelesmas with the pulsed dye laser or the argon laser .

The efficacy of these devices, however, is limited by their rather short penetration depths, requiring at least 4-8 treatment sessions and bearing a considerably higher recurrence rate and increased cost. Therefore, the use of the pulsed dye laser has been recommended only for the therapy of initial, flat xanthelesmas.

However, recently, several case reports have described the successful treatment of xanthelesma with the carbon dioxide laser.[6],[7]

In the current era of lasers, the classical method of surgical excision is often overlooked but in certain cases as was in our patient it still serves as a valid treatment option. The surgical treatment modality provides treatment in a single stage, provides aesthetically satisfactory result and at the same time provides tissue for histopathological diagnosis.

Zarem and Lorincz's approach superficially excises xanthelesma lesions, although they also support light electrodesiccation and topical treatment with trichloroacetic acid.[8] Le Roux advocates a modified blepharoplasty incision approach to address the medial canthal area , where xanthelesma are typically found.[9] Parkes and Waller advocate serial excisions.[10] Hosokawa et al have described use of orbicularis oculi musculocutaneous flaps to provide coverage after excision of large lesions.

#### **IV. Conclusion**

Various modalities exist for the treatment of xanthelesma, ranging from simple excision, to laser treatment, to chemical peeling. It is advisable to treat as soon as diagnosed. The surgical excision with resurfacing using full thickness graft is a clever therapeutic option for the treatment of xanthelesma palpebrarum especially for large lesions.

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