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XANTHELASMA TREATMENT

A procedure using radiosurgery can effectively remove xanthelasma, according to one surgeon.

Page 15

Radiosurgery can effectively remove xanthelasma

The procedure makes resection of the lesions quick and easy, surgeon says.

by Chedly Bouzouaya, MD

Special to Ocular Surgery News

Xanthelasma is rarely seen in persons younger than 30 years of age. If it appears, it usually develops after the age of 40. The presence of xanthelasma palpebrarum is a reason to investigate the serum cholesterol level (hypercholesterolemia, congenital lipid metabolism disorders). Although it usually occurs in patients with normal cholesterol levels, xanthelasma can be associated with other xanthomas and with hyperlipidemia syndrome in 5% of patients. One-third of patients with xanthelasma have an elevated serum cholesterol level. Xanthelasma occurs twice as often in women as in men.

Xanthelasma also occurs in association with hepatic-biliary disease, hyperlipoproteinemia type IIA (familial hypercholesterolemia or hyper beta-lipoproteinemia) and type III (broad beta-lipoproteinemia), Hand-Schueller-Christian disease, reticulohistiocytoma cutis, atherosclerosis, hypertension, diabetes mellitus, hypothyroidism, lepromatous leprosy and multiple myeloma.

"Young patients with xanthelasma are at high risk of premature atherosclerosis and higher incidence of lipoprotein abnormalities, specifically homozygouse type IIA."
— Chedly Bouzouaya, MD

Young patients with xanthelasma are at high risk of premature atherosclerosis and higher incidence of lipoprotein abnormalities, specifically homozygouse type IIA. Xanthelasma palpebrarum can be seen in association with arcus senilis, which is also due to cholesterol, phospholipid and neutral fat deposition. After the age of 70, this gerontoxon occurs regularly. It occurs in about 15% of patients when they are in their 40s. The presence of such a ring (arcus juvenilis) should make one suspicious of an underlying idiopathic hypercholesterolemia.

The flat, soft ivory to lemon-yellow wrinkled papule and oblong plaques develop at the middle canthal area of the upper lid and less frequently at the lower lid. The development is usually bilateral, symmetrical and slow until it reaches stationary phase.

Histopathological studies reveal collections of macrophages in the superficial dermis. The predominant lipid found in the lesion is esterified cholesterol.

Management

A spontaneous partial involution occurs rarely in older patients. Xanthelasma palpebrarum may show comedones or cysts. In such cases, there is a frequent association with hypertension and diabetes mellitus.

Xanthelasma is managed by cauterization, electrodessication, carbon dioxide laser ablation or serial excision. It can also be treated with topical 100% trichloroacetic acid by painting the lesion with a toothpick or the stick of a cotton stick applicator. A series of applications at 4-week intervals is required for complete removal, but xanthelasma may recur, and the trichloroacetic acid-painted area can result in hypopigmentation. Recurrence is more likely in patients with systemic disease.

We have been managing xanthelasma with a surgical excision using a patented 4.0 MHz, high frequency/low temperature radiosurgical unit (Surgitron Dual Frequency 120 watt, Ellman International Inc., Hewlett, N.Y.).

The resection of these lesions is easy with the use of radiosurgery, resulting in rapid and uncomplicated healing. No recurrences have occurred in patients without systemic disease.

High-frequency radiosurgery is well known to most ophthalmologists and particularly to oculoplastic surgeons. A growing number of colleagues use high-frequency radiosurgery and are satisfied with it.

Radiosurgery is performed with a portable generator that operates on a standard 60-cycle household current and converts the current to high frequency of 4.0 MHz above AM and below FM frequencies. This high-frequency current is further modified by filtering and rectification to produce one of four waveforms: fully filtered for cutting; fully rectified suitable for 50% cutting, 50% hemostasis; partially rectified for coagulation; and fulguration (spark-gap wave form). The radiowaves are transmitted to the electrode through a handpiece.

Technique

The Surgitron is set on the cut-coagulation mode. A varitip electrode or an empire needle is used. A surgical marking pen demarcates the xanthelasma, and the area is infiltrated with 2% lidocaine with 1/100,000 epinephrine. The anesthesia needle is inserted underneath the muscle underlying the plaque of xanthelasma. In most cases, the removal of xanthelasma located in the upper lid is combined with upper lid blepharoplasty, and the xanthelasma is removed with the excess skin. Skin and muscle are excised, especially the orbicularis underneath the plaque of xanthelasma. When the xanthelasma is in the lower lids, a direct resection of skin and muscle is performed. The surgeon must be careful not to induce a cicatricial ectropion. The incision can be hidden in the

(Xanthelasma, continued on page 16)

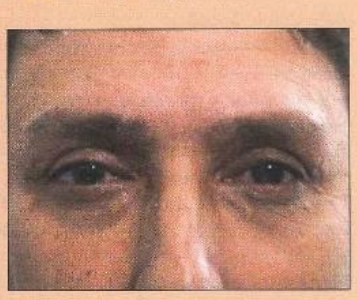
Xanthelasma palpebrarum on the upper lids. *(All images courtesy of Chedly Bouzouaya, MD.)*

Xanthelasma of the upper lid can be removed with the excess skin in an upper lid blepharoplasty type of excision.

Drawing of the excess skin to be removed, including the xanthelasma.

The use of radiosurgery made the resection easy and precise.

Preoperative view.



Postoperative view.

Close-up, preoperative view (patient on slide 4).

Close-up, postoperative view.

Preoperative view of upper and lower lids xanthelasmas.

Postoperative view.

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