

Suety and Blubbery-Xanthelasma

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Xanthelasma configures as a soft, bilateral, symmetric, yellow, lipid laden plaque implicating cutaneous surface of medial aspect of upper and lower eyelids. The condition may concur with primary hypercholesterolemia.

Additionally designated as xanthelasma palpebrarum or cutaneous xanthoma, neoplasm characteristically emerges within middle aged to elderly subjects. Morphologically, foamy histiocytes appear confined to superficial dermis.

Xanthelasma appears as symmetric lesions confined to the eyelids.

A female preponderance is observed. Age of disease onset is between 15 years to 73 years with peak age of disease occurrence at 30 years to 50 years. An estimated 50% subjects depict concurrent hyperlipidemia. Subjects with age of initial disease representation < 40 years are associated with enhanced possible occurrence of familial hyperlipidemia. Additionally, condition is concurrent with atherosclerosis, diabetes mellitus or thyroid disorders [1,2].

Xanthelasma is associated with certain primary hyperlipidemias, especially type 2a. Serum levels of high density lipoprotein (HDL) appear decimated.

Besides, secondary hyperlipidemia concurrent with conditions as hypothyroidism, diabetes mellitus or ingestion of drugs as glucocorticoids, oestrogens may induce the lesion.

Xanthelasma emerges in subjects consuming diet rich in saturated fats, cholesterol and excessive alcohol intake. Neoplasm is

characterized by intracellular accumulation of cholesterol rich substances [2,3].

Clinically, xanthelasma represents as yellowish, attenuated papules and plaques. Lesions are symmetrically disseminated upon cutaneous surfaces of medial aspect of upper or lower eyelids [2,3].

Majority (>80%) of female subjects depicting xanthelasma display periorbital hyperpigmentation.

Xanthelasma appears concordant with systemic diseases as cirrhosis, thyroid disorders or nephrotic syndrome.

Upon microscopy, tumefaction is comprised of foamy macrophages impregnated with lipids. Constituent lipid laden, foamy histiocytes are confined to superficial dermal region and accumulate while circumscribing walls of vascular articulations [3,4].

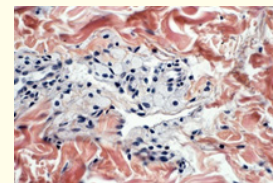


Figure 1: Xanthelasma depicting clusters of lipid laden histiocytes and foamy macrophages accumulated within the dermis and surrounding vascular structures [7].

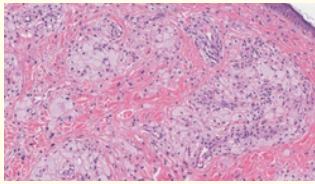


Figure 2: Xanthelasma delineating aggregates of lipid laden histiocytes and foamy macrophages accumulated within the dermal region and circumscribing blood vessels [8].

Xanthelasma is graded as

- Grade I: Lesion is singularly confined to upper eyelid
- Grade II: Lesion confined to the upper eyelid and medial canthus area
- Grade III: Lesion is confined to the medial aspect of upper and lower eyelids
- Grade IV: Diffuse lesions confined to medial and lateral aspects of upper and lower eyelids [3,4].

Tumour	Node	Metastasis
Tis: Melanoma in situ		
T0: Melanoma cells absent at primary site	N0: Regional lymph nodes deposits absent	M0: Distant metastasis absent
T1: Tumour ≤1mm •T1a: Tumour <0.8mm thick, non ulcerated •T1b: Tumour<0.8mm, ulcerated or between 0.8mm to 1cm, ulcerated/non ulcerated	•N1a: Microscopic deposits in ≤3 lymph nodes •N1b: Tumour spread to one adjacent node •N1c:Satellite tumours or spread to cutaneous lymphatic channels	M1: Distant metastasis into lungs, liver, brain with raised lactic dehydrogenase
•T2a: Tumour between 1mm to 2mm, non ulcerated •T2b: Tumour between 1mm to 2mm, ulcerated	•N2a: Microscopic deposits in ~3 lymph nodes •N2b:Tumour spread ≤3 lymph nodes •N2c: Satellite tumours or spread to cutaneous lymphatic channels & lymph nodes	
•T3a:Tumour<4mm, non ulcerated •T3b:Tumour between 2mm to 4mm, ulcerated	•N3a: Tumour deposits ~4 regional nodes •N3b: Tumour spread to≥4 nodes with palpable lymph node •N3c: Tumour deposits in adjacent, matted lymph nodes	
•T4a:Tumour >4mm, non-ulcerated •T4b: Tumour >4mm, ulcerated		

Table 1: TNM classification of Malignant Melanoma [3,4].

Xanthelasma appears immune reactive to CD68 and CD163. Lipid rich tumour cells may be highlighted by Oil red O stains.

Tumour cells appear immune non reactive to BRAF V600E, CD1a or Langerin [5,6].

Xanthelasma requires distinction from neoplasms as periorbital Erdheim Chester disease, periorbital Langerhans cell histiocytosis or injected foreign material and poly-L lactic acid (tissue filler) paraffinoma. Additionally, distinction from lesions as seba-

ceous hyperplasia, juvenile xanthogranuloma, nodular basal cell carcinoma, adult-onset asthma and periocular xanthogranuloma (AAPOX), palpebral sarcoidosis, lipid proteinosis or necrobiotic xanthogranuloma is necessitated. Besides, pseudo-xanthogranuloma may ensue following surgical vitrectomy along with deposition of silicon oil within subcutaneous tissue planes [5,6].

Xanthelasma may be appropriately discerned with the occurrence of characteristic clinical countenance.

Serum lipid profile may be employed to evaluate hypercholesterolemia.

Ultrasonography of xanthelasma is optimal in assessing depth of lesion and echotexture. Aforesaid features are essential for adopting appropriate therapeutic strategies.

Generally, surgical tissue sampling for precise histological examination remains superfluous [5,6].

Xanthelasma may be subjected to conservative management as frequent reoccurrence of tumour nodules is observed. Nevertheless, surgical extermination of lesion or laser ablation therapy appears beneficial. Topical therapy may be suitably employed for superior cosmetic outcomes. Administration of lipid lowering agents appears advantageous.

Enhanced possible reoccurrence of xanthelasma is associated with

- Associated hyperlipidemia
- Implication of four eyelids
- Previous reoccurrence of xanthelasma [5,6].

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8. Image 1 Courtesy: Science photo library.
9. Image 2 Courtesy: Atlas entry.com.