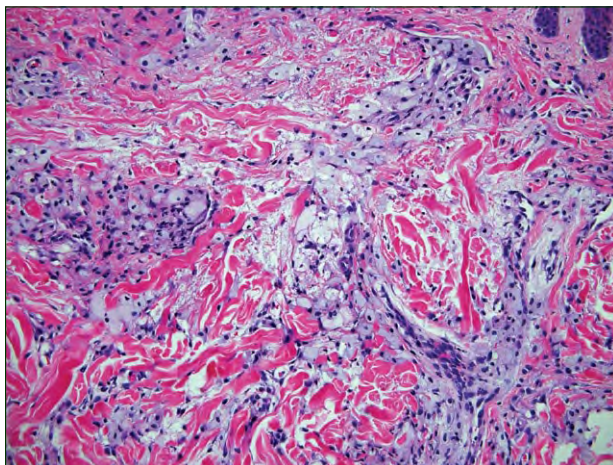


H&E, original magnification $\times 100$.



H&E, original magnification $\times 200$.

The best diagnosis is:

- a. eruptive xanthoma
- b. gout
- c. granular cell tumor
- d. granuloma annulare
- e. xanthelasma

PLEASE TURN TO PAGE 15 FOR DERMATOPATHOLOGY DIAGNOSIS DISCUSSION

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The authors report no conflict of interest.

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Eruptive Xanthoma

Eruptive xanthoma commonly presents as crops of small yellowish papules with erythematous halos on the buttocks, shoulders, and extensor surfaces of the extremities. It is associated with increased levels of serum chylomicron, as seen in diabetes mellitus, alcohol ingestion, or drug-induced cases (ie, exogenous estrogens, corticosteroids, retinoids).¹ Lipid-laden macrophages (lipophages or foam cells) are seen in the superficial reticular dermis, along with a variable infiltrate of lymphocytes and neutrophils, which are most prevalent in early lesions. Rapid deposition of lipid, predominantly

triglyceride, overwhelms the phagocytic capacity of the macrophage, which results in free extracellular lipid (Figures 1 and 2).² This free extracellular lipid may mimic the extracellular mucin of granuloma annulare or the feathery eosinophilic material seen in gout, but lipid-laden macrophages are rare in these conditions.³ Granuloma annulare displays a palisading granuloma surrounding a central area of degenerated collagen and increased basophilic mucin (Figure 3). In gout, histiocytes surround amorphous material with feathery clefts corresponding to urate crystals that have been dissolved during formalin

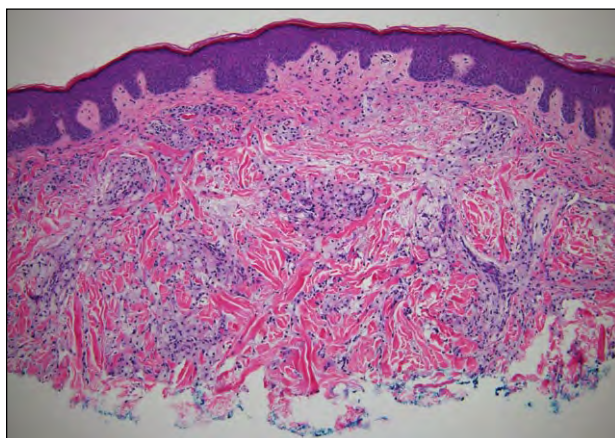


Figure 1. Sheets and cords of lipid-laden macrophages infiltrating the reticular dermis, simulating an interstitial pattern of granuloma annulare (H&E, original magnification $\times 100$).

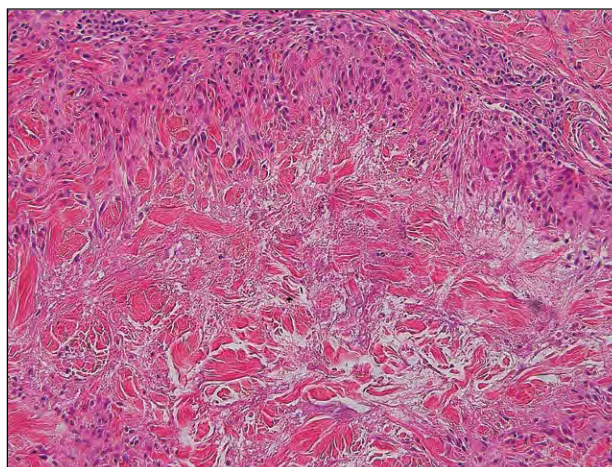


Figure 3. Dermal palisading granuloma surrounding degenerated collagen and increased basophilic mucin of granuloma annulare (H&E, original magnification $\times 200$).

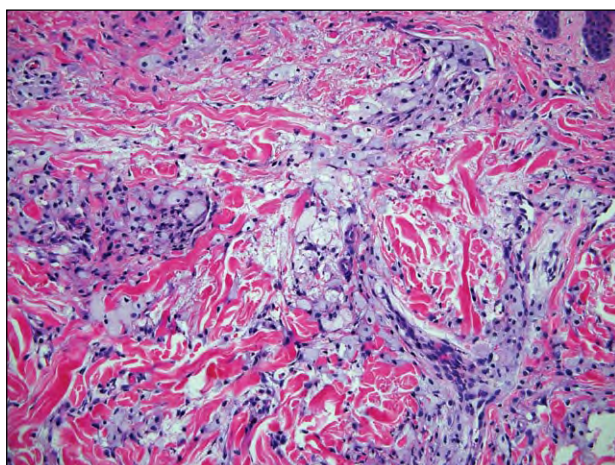


Figure 2. Lipid-laden macrophages with foamy cytoplasm and free extracellular lipid distinguish eruptive xanthoma from granuloma annulare (H&E, original magnification $\times 200$).

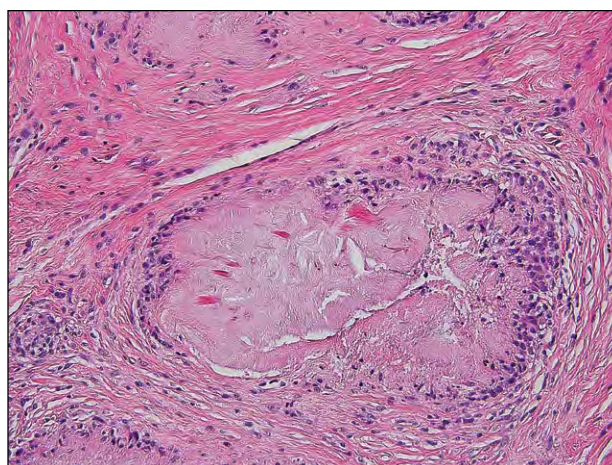


Figure 4. Deep dermal palisading granuloma surrounding amorphous eosinophilic material with feathery clefts of gout (H&E, original magnification $\times 200$).

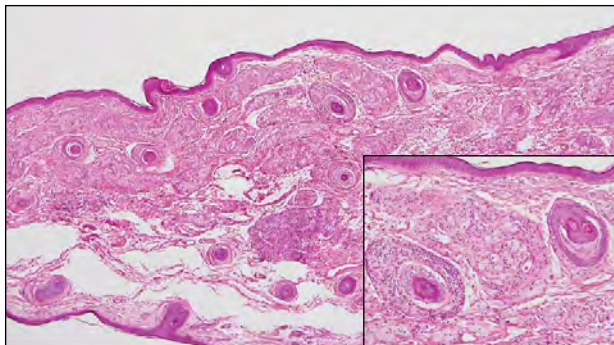


Figure 5. Thin epidermis with numerous vellus hair follicles that suggest eyelid location (H&E, original magnification $\times 100$). Aggregates of intact foam cells in the superficial dermis of xanthelasma (inset in bottom right corner)(H&E, original magnification $\times 200$).

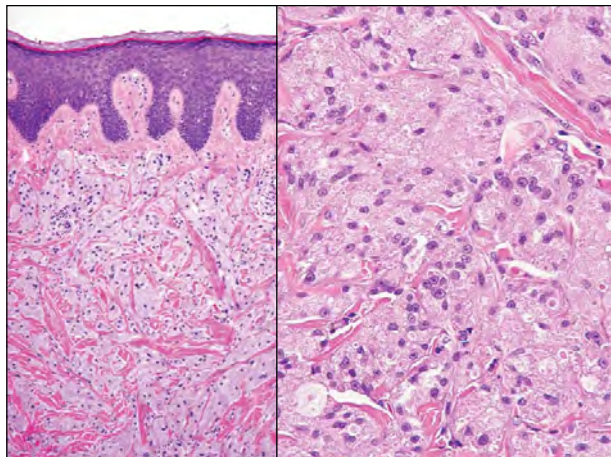


Figure 6. Sheets of large polyhedral cells (left)(H&E, original magnification $\times 100$) with eosinophilic granular cytoplasm and large cytoplasmic granules surrounded by a clear halo (pustulo-ovoid bodies of Milian) of granular cell tumor (right)(H&E, original magnification $\times 200$).

fixation (Figure 4). Xanthelasma should be suspected based on the location of the eyelid (eg, vellus hair follicles, striated muscle) and the presence of intact foam cells without extracellular lipid (Figure 5). Granular cell tumor may resemble sheets of foam cells on low-power magnification; however, on closer inspection this tumor is composed of polyhedral cells with coarse eosinophilic granular cytoplasm and large cytoplasmic granules surrounded by a clear halo (pustulo-ovoid bodies of Milian)(Figure 6).

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