

Granuloma Annulare: A Rare Case of the Eyelid

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INTRODUCTION

Granuloma annulare is a benign granulomatous dermatitis that is further subclassified into four types based on the pattern of tissue involvement. Lesions are defined by a necrobiotic core surrounded by histiocytes and lymphocytes along with mucin and fibrin deposition. Granuloma annulare is often described on the extremities, trunk, hands, and scalp but rarely reported on the face. We report a case of subcutaneous granuloma annulare in a 42-year-old female patient located on the right lower eyelid for which she underwent surgical excision. Although it is rarely observed in the periorbital region, granuloma annulare is important to consider in a differential diagnosis of an atypical skin lesion of the face.

CASE PRESENTATION

- 42 year old female with enlarging lesion of RLL for one year
- Progressed with hazy vision, 10/10 pain, transient clear/milky discharge from lesion
- Emergence of two additional firm nodules closer to medial canthus as well as a similar lesion of right hand
- Examination revealed a 3.0 X 0.7 cm heterogenous mass extending into subcutaneous tissue with possible orbital involvement
- Lesion was excised and RLL defect was filled using graft from LUL
- Biopsy revealed multiple cystic masses. Microscopic analysis revealed palisading histiocytes and lymphocytes surrounding a necrobiotic core of collagen degradation as well as fibrin and mucin deposition.

IMAGING



Figure 1 A: Papules confined to the right lower blepharon and just medial to the lacrimal caruncle; B: Erythematous papules on the right hand.

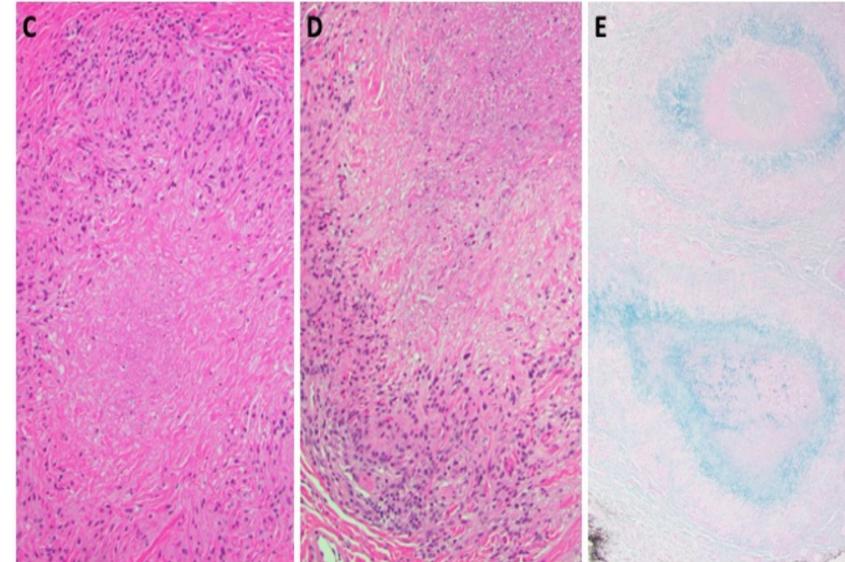


Figure 2 C/D: H&E stained granuloma depicting histiocytes and lymphocytes surrounding a necrobiotic core; E: Colloidal iron stained granuloma suggests evidence of mucin deposition.

DISCUSSION

- Granuloma annulare is a dermatitis broadly characterized as localized, generalized, subcutaneous, and perforating¹.
- Pathogenesis of GA formation is still under investigation. Pattern includes collagenous degradation with surrounding histiocytes and lymphocyte, mucin and fibrin deposition², and a delayed type hypersensitivity reaction.
- Periorcular GA is rare, most cases isolated to extremities and trunk. Literature survey reveals five case reports of GA on the eyelid with few more in periorcular region^{3,4,5}.
- This lesion occurred in the absence of any underlying disease or inciting trauma, atypical for GA. Subcutaneous GA is a rare finding both in adults and on the face¹.
- Treatment varies based on subtype of lesion and location and includes triamcinolone, cyclosporine, isotretinoin, hydroxychloroquine, nitrous oxide, and PUVA therapy. Patient here presents with subcutaneous GA of the eyelid treated with surgical excision.

CONCLUSIONS

Granuloma annulare is characterized by a pattern of necrobiosis, palisading histiocytes and lymphocytes, fibrin and mucin deposition. Frequently encountered periorcular lesions include hordeolum, chalazion, xanthogranuloma. However, important to include in the differential for such lesions is granuloma annulare which can be addressed with a variety treatments based on its subtype and pattern of distribution.

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