Granuloma Pyogenicum Of The Palpebral Conjunctiva In An African Child

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SUMMARY

We report a case of granuloma pyogenicum involving the upper palpebral conjunctiva in a male child with the histopathological features found after excision. This has not been previously reported in an African and there was no history of previous trauma or inflammation of the eyelid. The lesion was associated with an indolent corneal ulcer which took 7 months to heal completely even though no recurrence of the lesion occurred after a complete excision.

Key Words: Granuloma Pyogenicum, conjunctiva.

INTRODUCTION

Granuloma pyogenicum, also known as pyogenic granuloma is a rare lesion around the eye[1] although it is well recognised on the skin and can also affect mucous membranes[1,2]. When it affects the palpebral conjunctiva, it is not known to cause corneal ulceration[1,3]. It has been reported to be due to prior trauma (e. g. surgery)[4], inflammation (e. g. chalazion)[4] of the eyelid, or very rarely soft contact lens wear[5] but it may arise spontaneously[1,4]. Surgical excision is the treatment of choice and although it is said not to recur[3], one of recurrence has been reported[1].

CASE REPORT

A 4 year old Nigerian boy presented with a 3 month history of a painless swelling on the palpebral conjunctiva of the right upper lid. The lesion had been excised a month prior to presentation in a private hospital but had recurred 3 weeks after excision with resultant watering and redness of the eye. Examination revealed a healthy boy with a vision of 6/60 in the right eye, the left vision was 6/5. He was found to have a fleshy, lobulated, highly vascular, pedunculated mass on the palpebral conjunctiva of the right eye. This lay directly above the visual axis measuring 5 x 5mm (Fig. 1). There was an associated central corneal ulcer (4 x 3 mm) and stromal infiltration. There was also distichiasis of the right upper eyelid, the left upper eyelid having the normal 2 rows of eyelashes. There was also pussy discharge in the right eye. Microbiological tests could not be done because of water shortage in the hospital but because of the pussy discharge and satellite lesions in the corneal stroma, an intensive course of topical antibiotics and antifungal agent was given. The ulcer failed to heal satisfactorily with any of these although there was resolution of the stromal infiltrates. Six weeks after presentation, he had wide excision of the upperlid lesion. Histology showed proliferating plump vascular endothelium-lined channels in an acutely inflammed stroma. There was no collection of pus. The features were consistent with a diagnosis of pyogenic granuloma. Postoperatively, the ulcer healed slowly on topical antibiotics with padding of the eye. Because of the slow rate of healing, a soft contact lens was inserted for 3 weeks. This accelerated the healing process. The corneal ulcer finally healed completely after 7 months with resultant central corneal opacity (macular type) but the eye retained reasonably good vision (6/9 unaided). Almost 2 years after the complete excision the lesion has not recurred (Fig. 2).

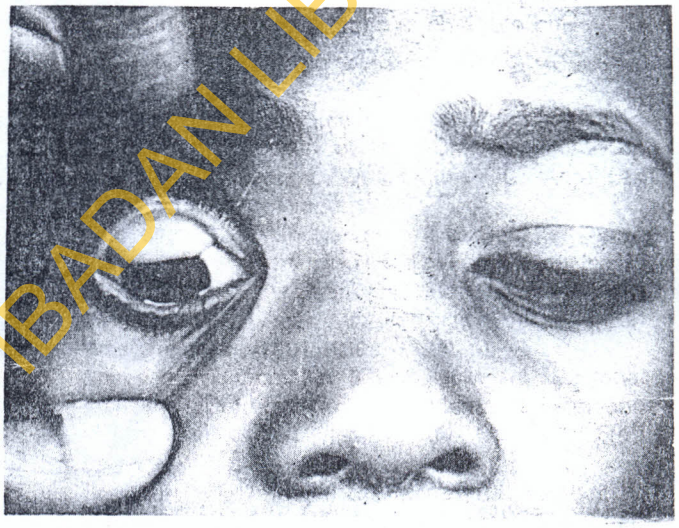

Fig. 1: Lesion on right upper palpebral conjunctiva pre- operatively.

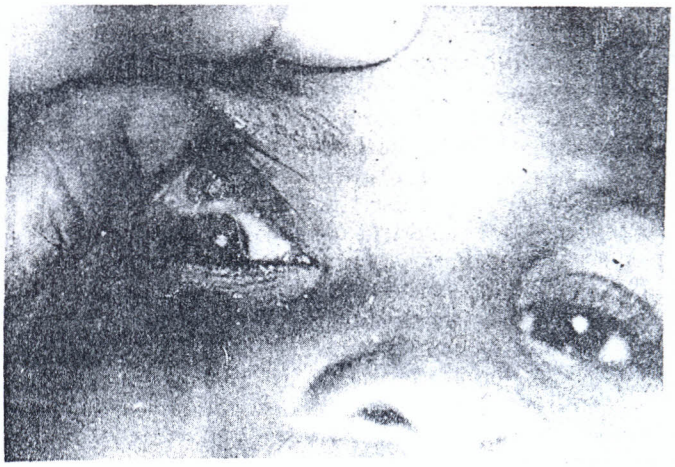

Fig. 2: Right upper palpebral conjunctiva of the same patient showing no recurrence.

DISCUSSION

Granuloma pyogenicum, also known as pyogenic granuloma is a misnomer since the lesion is not associated with either purulent or granulomatous inflammation[4].

It is a capillary haemangioma of the granuloma type. The lesion is usually a red, lobulated mass of proliferating capillaries and endothelial cells usually with an inflammatory cell infiltrate[4]. It often develops over the site of prior trauma (e. g. surgery) or inflammation (e. g. chalazion) but may also arise spontaneously[1,4]. One case arising from soft contact lens wear has been reported[5]. The clinical appearance in our patient, of a fleshy, lobulated, vascular and pedunculated mass is a common presentation of this lesion in the palpebral conjunctiva[1,3,6]. Limbal and corneal sites have been reported but these are associated with predisposing conditions like indolent corneal ulcers, dry eye syndrome, trachoma, trichiasis, alkali burn, multiple topical drug use, previous orbital irradiation and ocular cicatrical pemphigoid[6]. In our case, the lesion on the eyelid arose prior to corneal ulceration. It is thought that the initial excisional biopsy at a private hospital did not completely clear the lesion, hence the rapid "recurrence" within 3 weeks. Surgical trauma on the eyelid most probably led to the corneal ulceration which became infected, but would not heal completely until a complete excision of the eyelid lesion was performed.

The aetiology of granuloma pyogenicum remains obscure. Initially, most authors considered the lesion to be a proliferation of highly vascular granulation tissue secondary to local infection[1]. Other authors have since suggested that the tissue consists of more numerous and better organised vascular channels than is usual in infective granulomas or chronic ulcers[7].

The lesion may also represent a small haemangioma, the inflammatory reaction, when present, being the result of ulceration and secondary inflammation[8].

In conclusion, granuloma pyogenicum of the palpebral conjunctiva is an uncommon lesion which has never been reported (as far as we know) in an African child. It has also not previously been reported to cause corneal ulceration.

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