

Management of Lacrimal Canalicular Papilloma - A Case Report

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ABSTRACT

Purpose: To report a case of papilloma from the lacrimal canaliculus and its management.

Case report: A 9-year-old girl presented with a complaint of painless swelling of the right lower lid medially. On examination, papillomatous growth was projecting through the right inferior punctum. Other findings were normal. The canalicular growth was curated and histopathologically it was diagnosed as squamous papilloma. The tumor recurred after 4 months and managed by right lower canaliculotomy and excision of the lesion followed by application of MMC 0.04% for 2 minutes. There was no recurrence of lesion at six months' follow up.

Conclusion: Lacrimal canalicular papilloma is a rare cause of epiphora. Surgical excision with application of MMC (0.04%) has shown a promising outcome in our case.

Keywords: Squamous Papilloma, Canaliculotomy, Mitomycin C.

Introduction

Canalicular papillomatosis are atypical benign epithelial tumors emerging from the canalicular epithelium as a stalk attached to the canalicular walls.

It was first described by Demaiens in 1818¹. Though the etiology and management stay indefinite, various modalities of treatment have been described.

We are reporting a case of recurrent lacrimal canalicular papillomatosis that was managed by surgical excision and application of 0.04% MMC.

Case report

A 9-year-old girl presented to Orbit and Oculoplasty clinic of Chittagong Eye Infirmary and Training Complex with progressive swelling

of the right lower lid for 4 months (figure-1). There were no previous occasions of swelling along the lacrimal sac area. She had no past history of trauma or spontaneous bleed from the nose. There was no regurgitation on pressure and no palpable mass over the right lacrimal sac area. Ocular examination of both the eyes was normal.



Figure-01: Swelling of right lower canalicular region

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Figure-02: Papillomatous lesion projecting through the punctum

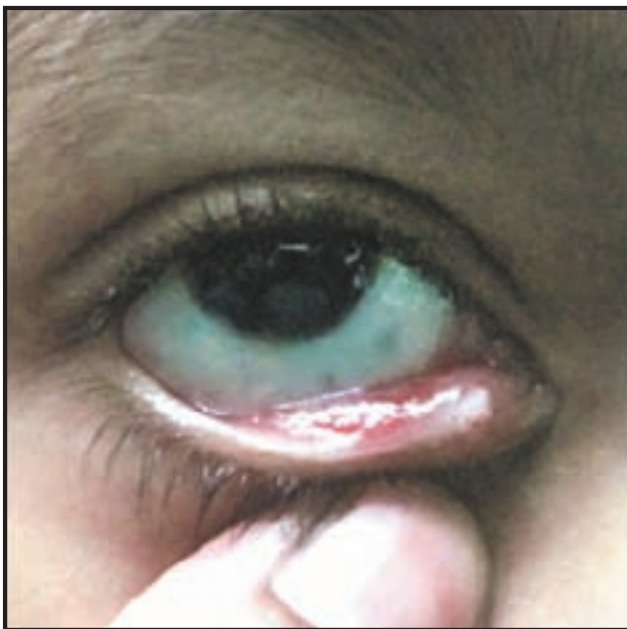


Figure-03: Recurrence of lesion at the same site

Discussion

Canalicular papillomatosis are rare variety of benign epithelial tumors. Though the pathogenesis is not clear; however, immuno histochemical and polymerase chain reaction analyses show evidence of the presence of human papilloma virus (HPV) types 6 and 11 infection^{2,3}.

They occur mostly at young age, often unilateral, with or without epiphora, and history of multiple recurrences. They are sometimes associated with conjunctival or lacrimal sac papillomata. However, the case we have described was not associated with conjunctiva or lacrimal sac papillomata.

Williams et al.⁴ reported three cases of canalicular papillomatosis, all of them were unilateral. They also studied 12 cases issued in the literature and establish that patients presented with epiphora or a mass lesion. Most of them were from lower canaliculus and unilateral.

Diagnosis of lacrimal canalicular papilloma is based on clinical features, though determination of exact location and extension of lesion is challenging. Javed et al. showed that a high-definition dacryoendoscopy (HD-DEN) is a useful modality to determine the location and extent of lesion⁵. They have used this device to describe the macroscopic features of lesion. This modality can also be used to establish the cure or recurrence of the lesion.

Histologically, the canaliculi are lined by non-keratinized, non-mucin producing stratified squamous epithelium, which transforms to stratified columnar epithelium with goblet cells in the lacrimal sac and in the nasolacrimal duct. This mixed epithelial lining of the lacrimal drainage system gives rise to a range of epithelial tumors. Most of them are benign, including adenomas and papillomas. The latter may be exophytic or inverted. The described case demonstrates the benign form of papillomata.

Many therapeutic options have been tried for lacrimal papillomas. However, the outcomes have been unsatisfactory⁶. The standard modality of management is surgical excision followed by cryotherapy⁷⁻⁹. Williams et al.⁴ reported three cases of canalicular papillomatosis cured with excision biopsy and cryotherapy.

MV Parulekar et al. and Javed et al. showed the use of topical and intralesional Interferon $\alpha 2b$ for the treatment of papillomata though the outcome was disappointing^{5,10}. It was supplied either way by dacryoendoscopy-guided transcanalicular injection to the lesion or by topical drops, four times a day.

In our case, instead of Interferon, we have applied Mitomycin C (0.04%) which is also an antineoplastic agent. It has got anti-metabolite with anti-proliferative effect. It acts by inhibiting DNA synthesis which results in decreased rate of cell proliferation. Though in the Medline search we didn't find any literature regarding the usage of MMC for the management of lacrimal canalicular papilloma, but it has been used effectively as adjunctive therapy for controlling conjunctival papilloma^{11,12}, conjunctival and corneal squamous cell carcinoma¹³. Topical use of MMC sometimes causes pain, photophobia, lacrimation, foreign body sensation, punctate epithelial erosion but all these resolves after the stoppage of use of MMC.

We have diagnosed our case on the basis of clinical examination and we do not have the facility of modern diagnostic tool as high-definition dacryocystoscopy (HD- DEN) to determine the exact location of lesion and find out the outcome of MMC. However, the current case shows that application of 0.04% MMC plays a promising role in the treatment of lacrimal canalicular papillomatosis, though a large case series study is required to validate the use of MMC.

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