

MUCOCELE OF THE LACRIMAL GLAND — A Case Report

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SUMMARY

Objective: To report a case of mucocele of the lacrimal gland.

Method: An excisional biopsy was carried out on a 35-year-old man who presented with a history of a swelling in the upper outer region of the right upper lid. A histology report showed it to be a mucocele of the lacrimal gland.

Conclusion: Mucocele of the lacrimal gland should be considered as a differential diagnosis of swellings in the upper outer quadrant of the upper eyelid.

Key words: mucocele, lacrimal gland

INTRODUCTION

Mucoceles are uncommon and mainly affect the paranasal sinuses. There have been several reports of frontal, ethmoidal and maxillary sinus mucoceles.^{1,2,3,4,5} Other reported locations of mucocele are the anterior clinoid process and optic canal⁶ and the crista galli,⁷ but these are rare. To the best of our knowledge lacrimal gland mucocele has never been reported in Nigeria.

The lacrimal gland is located in the lacrimal fossa in the anterior superior temporal portion of the orbit. Histologically, it is a tubulo-alveolar gland composed of columnar-shaped cells of serous type resembling the parotid acinar cells⁸. They show lightly stained secretory granules, and a basal lamina separates them from the surrounding connective tissue. The secretory portions are surrounded by well-developed myoepithelial cells. In this paper, we present a case of mucocele of the lacrimal gland presenting as an eyelid swelling.

CASE REPORT

A 36-year-old clergyman presented at the Olabisi Onabanjo University Teaching Hospital on January 14,

2005, with a two-year history of a painless swelling in the right upper outer region of the upper lid. The swelling had remained the same size until three weeks prior to presentation. The patient had no other swellings on any other part of his body and there was no sign of diplopia. There was no antecedent history of trauma, eye discharge or excessive tearing. The patient's general health was satisfactory and he had no visual impairment.

Examination revealed a young man who was not pale, anicteric or afebrile. Visual acuity (unaided) was 6/5 in the right as well as the left eye. There was a non-tender cystic swelling measuring 2.5cm by 1.5cm on the right lateral aspect of the globe (figure 1). It was not possible to get above the swelling but it was possible to get below it. There was no proptosis and no ocular deviation. The swelling was not attached to the lid and



Figure 1. Eye showing non-tender cystic swelling on right lateral aspect of the globe

extraocular muscle movement was full in both eyes.

Other eye examinations were essentially normal. A working diagnosis of a right anterior orbital mass with a differential of dermoid cyst or lacrimal gland tumor was made. An ultrasound scan showed a mass not

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attached to the globe, which is consistent with a dermoid or epidermoid cyst with no retro-orbital extension.

An excisional biopsy was done and the specimen was sent for histology. The histology showed a cystic wall lined by flattened epithelial cells and lobules of hyperplastic serous glands. These features are consistent with those of a mucocele of the lacrimal gland⁹ (figure 2). On two consecutive follow-up appointments, no recurrence was seen. The patient has since been lost to follow up.



Figure 2

DISCUSSION

Mucoceles are mucous-containing cysts which commonly occur in pneumatizing air cells like the frontal or anterior ethmoidal sinuses.¹⁻⁴ Mucoceles of the maxillary sinus have also been reported.⁵ Mucoceles are the most common mucous-containing cysts in the head and neck. The pathogenesis of mucoceles of the optic canal and anterior clinoid process are not fully understood but are thought to originate from ectopic mucinous tissue that appear during the development of the optic canal.⁶ Mucoceles involving the salivary gland, otherwise known as mucous extravasation phenomenon or mucous retention phenomenon, have also been reported. They occur as a result of salivary duct rupture, often following trauma.¹⁰ Salivary gland secretions of sialomucin cause the separation of tissue layers in the submucosal plane outside the ductal system of the salivary glands. Mucoceles of the salivary glands are more common in men than in women and also occur more often in young adults than in other age groups as evidenced by the patient in this report, though he did not report a history of trauma.¹⁰ There has been no reported case of mucocele of the lacrimal gland. However, since the lacrimal gland is a secreting cell like the salivary glands, the same mode of occurrence can be postulated.

Mucoceles of the salivary glands may be misdiagnosed as mucous cysts or mucous retention cysts.¹¹ Unlike mucoceles, however, mucous cysts possess a true epithelial capsule derived from salivary ductal epithelium.¹¹ The cysts are, however, much less common and smaller than mucoceles.

A common differential diagnosis of lacrimal gland tumour in this age group is pleomorphic adenoma of the lacrimal gland.¹² This tumour grows slowly and is more common in men than women, with a median age of 35 years.¹² Treatment is mainly by excision.

Dermoid/epidermoid cysts constitute another differential. These are congenital disorders that are believed to arise from embryonic epithelial nests that become entrapped during embryogenesis.¹² They sometimes protrude through the frontozygomatic suture and take a dumbbell shape.¹² Histologically, the cyst contains keratin and hair, and the cyst walls are lined with adnexal structures and occasionally lacrimal gland.¹²

Simple excision is the mainstay of treatment of mucoceles and this was done in this patient. The patient's condition was alleviated and there was no sign of recurrence on two consecutive clinic visits post-op. The patient was subsequently lost to follow up.

We therefore conclude that mucocele of the lacrimal gland should be considered a differential of any swelling in the upper outer quadrant of the upper lid.

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