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A case of cystic degeneration of nasal pterygium

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Abstract

The purpose of this study is to report a case of development of cystic degeneration in a patient of nasal pterygium. The patient was a 32 year old male without any specific history of surgery or trauma, presented with redness and foreign body sensation in right eye. Nasal pterygium along with a cystic swelling in the body of pterygium was noted. Size of cyst was stationary without any signs of inflammation. It did not respond to medical management hence excision of cyst followed by histopathological examination of specimen was done. On histopathological examination, it was found that the wall of conjunctival cyst consisted of non-keratinizing stratified squamous epithelial cells. Signs of elastotic degeneration were present. Inflammatory cells were absent.

Keywords: Pterygium, degeneration, Cyst, epithelium, Inflammation

Introduction

Pterygium, a disease of unknown origin and pathogenesis, is a chronic condition characterized by the encroachment of a fleshy mass of the bulbar conjunctiva usually triangular in shape into the cornea.^[1] Pathologically it is a proliferation of the subconjunctival tissues as vascularized granulation which has a tendency to involve stroma of the cornea.^[2] Pterygium is a benign condition, but sometimes malignant transformation can be seen in epithelium and its stroma can show cystic degenerative change.^[3]

Case report

A 32-year-old man presented with a horizontally oval cystic swelling measuring 8 x 3 mm in the body of the nasal pterygium in left eye since 6 months.^[Figure:1] The cyst was stationary in its size. The cyst could be moved freely and was free from the deeper structures. The pterygium was pale and no blood vessel could be seen on the cyst. The swelling was painless and non tender. There was no history of any prior inflammatory episode in this eye. The ocular movements were normal and the preauricular lymph nodes were not palpable. The whole of the pterygium was excised; bare sclera was left and the cornea was cauterized. The specimen was then sent for histopathological examination. Microscopic examination revealed a cyst lined with stratified squamous epithelium in the stroma of the pterygium.^[Figure: 2] The cyst cavity contained cellular debris and mucoid material, but there was no inflammatory reaction surrounding the cyst all-round.

Discussion

There are various types of conjunctival cysts, it could be epithelial implantation, parasitic, glandular retention or lymphatic cyst.^[4] As per case series reported by Kiratli et al. cases in association with pterygium as inclusion cysts were developed in the conjunctiva in association with chronic inflammation.^[5] There is an inflammatory

hypothesis regarding development of cystic degeneration of pterygium which result in down-growth of the surface cylindrical cells, the central core of which undergoes a degenerative change to form cystic cavities. The cysts can be unilocular or multilocular. Also the cysts which are congenital in origin are deep to the pterygium and fixed to the deeper structures.^[6]

The free mobility and non-adherence of the cysts to the deeper structures are suggestive of the acquired origin of cysts in our cases. We could not find any proof of the inflammatory origin of the cysts. The intact epithelial lining of the pterygium is another proof against the inflammatory origin, where the lining is disorganized.^[7] The cyst, thus appear to be the result of cellular down-growth following primary degenerative changes in the stroma of the pterygium rather than an inflammatory episode.

Summary

A case of cystic degeneration of pterygium is described in this case report. As we could not find any inflammatory origin of the cyst, primary degenerative phenomenon is held responsible for the cystic changes in the pterygium.

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Figures



Fig.1: Clinical photograph showing cystic swelling in the body of pterygium

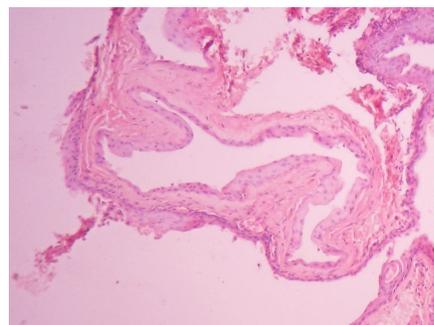


Fig.2: Microscopic examination shows cyst wall lined with non keratinizing stratified squamous epithelium, with elastotic degeneration of stroma without any sign of inflammation.