

ANATOMICAL DISTORTION IN A RARE CASE OF STAPHYLOMA : A CASE REPORT

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ABSTRACT

A 45 year old male patient presented to ophthalmology OPD with gradual loss of vision following corneal injury 11 years back. Patient had no perception of light in right eye and 6/6 vision in left eye. On examination patient had three types of staphyloma in the right eye - anterior, ciliary and equatorial staphyloma. Distorted anatomy due to the three types of staphyloma present together is a rare presentation.

KEYWORDS: Staphyloma, Anterior staphyloma, Equatorial staphyloma, Ciliary staphyloma.

INTRODUCTION

An eyeball consists of 3 concentric coats. The outer / fibrous coat comprises the sclera and cornea. The sclera forms posterior five-sixth of the eyeball. The sclera is opaque and is composed of dense fibrous tissue. It maintains shape of eyeball. The sclera is continuous anteriorly with cornea at sclerocorneal junction or limbus. Posteriorly it is fused with the dural sheath of the optic nerve. The cornea is transparent and avascular. It replaces the sclera over the anterior one-sixth of the eyeball.^[1,2,3]

The middle/ vascular coat, also called the uveal tract, consists of choroid, the ciliary body and the iris. Choroid is a thin pigmented layer which separates the posterior part of the sclera from the retina. Anteriorly, it ends by merging with the ciliary body. Posteriorly, it is perforated by optic nerve to which it is firmly attached. Ciliary body is a thickened part of

the uveal tract lying just posterior to the corneal limbus. It is continuous anteriorly with the iris and posteriorly with the choroid. Iris, is the anterior part of the uveal tract. It forms a circular curtain with an opening in the center called pupil. Light enters the eyeball through the pupil.^[1,2,3]

The inner /nervous coat is the thin, delicate layer called the retina. The optic part of the retina contains nervous tissue and is sensitive to light.^[1,2,3]

Staphyloma refers to a localized bulging of weak and thin outer coat of the eyeball (cornea and sclera), lined by uveal tissue which shines through the thinned out fibrous coat. Staphyloma are of five types: Anterior, Intercalary, Equatorial and Posterior staphyloma. Perforating injuries, peripheral corneal ulcer, absolute glaucoma, scleritis, and pathological myopia can cause weakening in the outer coat resulting in staphyloma.^[4]

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Figure 1. 1 - Anterior Staphyloma; 2 – Ciliary Staphyloma; 3 - Equatorial Staphyloma

CASE REPORT

A 45 year old male patient presented with gradual loss of vision following corneal injury 11 years back. Patient had no perception of light in right eye and 6/6 vision in left eye. On examination, the patient had three types of staphyloma in right eye: Anterior, ciliary and equatorial staphyloma. This is a rare presentation.

Both eyes were examined using slit lamp, schiottz tonometer and B-scan ultrasonography. On examination, the patient had anterior, ciliary and equatorial staphyloma with gross enlargement of right eye ball (Figure1). Three varieties of staphyloma in the same eye is rare. On examination of right eye, patient had no perception of light, lagophthalmos was present on lids and 3 varieties of staphylomas were present in conjunctiva. Pupil, anterior chamber, lens and fundus could not be viewed in right eye. Intraocular pressure was 28mm Hg. B-scan showed equatorial staphyloma nasally. Lacrimal duct was patent and ocular movements were normal. Left eye was normal.

DISCUSSION

Anatomically, staphyloma can be divided into anterior, intercalary, ciliary, equatorial and posterior staphyloma.

- Anterior staphyloma is an ectasia of pseudocornea (scar formed from organized

exudates and fibrous tissue covered with epithelium) which results after total sloughing of cornea, with iris plastered behind it.

- Intercalary staphyloma is a localized bulge in the limbal area lined by the root of the iris. It results due to ectasia of weak scar tissue formed at the limbus, following healing of a perforating injury or a peripheral corneal ulcer.
- Ciliary staphyloma is the bulge of weak sclera lined by ciliary body. It occurs 2-3 mm away from the limbus. Common causes are perforating injury, scleritis and absolute glaucoma.
- Equatorial staphyloma is due to the bulge of sclera lined by choroid in the equatorial region. It is caused by scleritis and degeneration of sclera in pathological myopia.
- Posterior staphyloma is bulge of weak sclera lined by choroid behind the equator. Common causes are perforating injuries, pathological myopia and posterior scleritis.^[4,5]

Anatomical distortion in the present case is due to corneal injury that the patient sustained 11 years back, which resulted in the total sloughing of cornea, with iris plastered behind it due to ectasia of the pseudocornea (anterior staphyloma). Also there was bulge of weak sclera lined by ciliary body 2-3 mm away from the limbus due to scleritis and glaucoma (Ciliary staphyloma). There was also a bulge of sclera lined by choroid in the equatorial region. It is caused by scleritis (Equatorial staphyloma).

CONCLUSION

This case needs to be published for the unusual presence of unilateral multiple staphylomas.

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