Natural course of congenital corneoscleral cyst: 10-year follow-up

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Key words: Corneoscleral cyst, corneal cyst, congenital

A congenital corneoscleral cyst is a rare ocular condition that has been reported after either traumatic implantation of epithelium or abnormal embryological development. Authors report long term follow-up of the corneoscleral cyst with no evidence of progression over 10-years.

A 12-year-old girl presented with a whitish lesion in her left eye noticed by her parents since birth. Her best-corrected visual acuity (BCVA) was 20/20 in both eyes with simple myopic refractive error of −3.00 DS in the right eye and −2.25 DS in the left eye. On examination, there was a thin-walled multiloculated scleral cyst of size 3 × 2 mm involving limbus at 9 o'clock with intrastromal corneal cyst 1.5 mm away from the limbus. There was clear fluid in cysts and overlying conjunctiva was mobile. The intracorneal cyst was 0.5 × 1 mm [Fig. 1a] with clear surrounding stroma. The rest of the ocular examination was normal. After 10-years the patient has BCVA 20/20 with refractive error of −4.00 DS in both eyes and there was no evidence of progression [Fig. 1b]. Anterior segment optical coherence tomography done on the last follow-up reconfirm the presence of a cyst in cornea and sclera with fine communication channels seen between the two cysts [Fig. 2].

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Discussion

Corneal cysts have been reported as purely corneal or with associated scleral involvement. Congenital corneoscleral cysts are rare and it has been postulated that entrapped epithelial cells in limbus during scleral development lead to the formation of

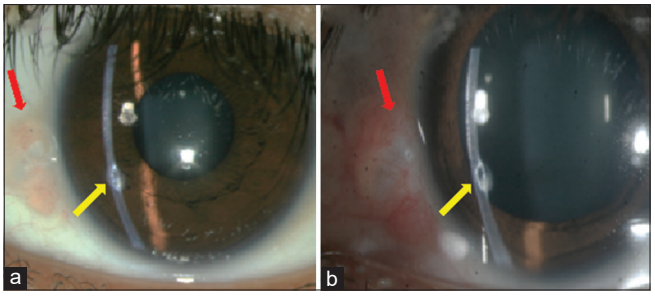

Figure 1: (a) Diffuse slit-lamp photograph showing scleral cyst at 9 o'clock (red arrow) and corneal cyst (yellow arrow) at presentation. (b) Diffuse slit-lamp photograph of the left eye showing scleral cyst at 9 o'clock (red arrow) with slit section passing through corneal cyst located in the deep stroma (yellow arrow) at follow-up after 10-years

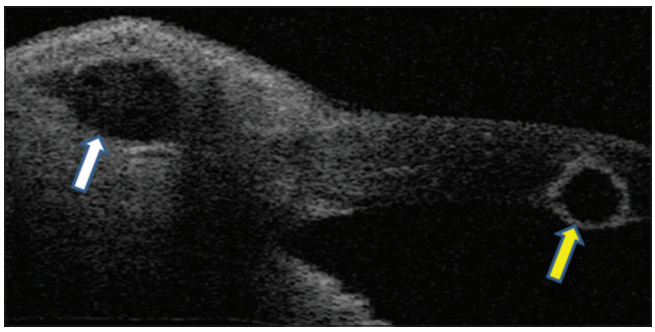

Figure 2: AS-OCT showing the location of cyst in the anterior sclera (white arrow) and intracorneal cyst in the posterior stroma (yellow arrow) with fine communication posteriorly

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a cyst.[1] The indications for surgical treatment are progressive increase in the size of cyst leading to poor vision, the involvement of visual axis or astigmatism.[2] However, incomplete excision of the cyst and simple aspiration is associated with a high risk of recurrence.[3] Spontaneous resolution of cyst has also been reported.[4] Keeping in view the smaller size and peripheral location of corneal cyst authors did not intervene surgically and preferred monitoring for progression. In this case, a 10-year follow-up suggests that not all cases progress and surgical intervention can be delayed in a small peripheral intracorneal cyst which is not affecting the visual axis.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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