Primary Iris Cyst: A Case Report

Primary iris cysts are relatively uncommon and are usually stationary. They are asymptomatic and do not require treatment except in rare instances. They are usually detected during routine slit lamp examination. Rarely peripheral cysts can cause angle closure glaucoma.

CASE REPORT
A 47 year old male presented with complaints of defective vision of five months duration. There was history of a shadow appearing before the right eye on going out into bright sunlight. The shadow was progressively increasing in size.

There was no history of pain, redness, ocular trauma or any ocular surgeries. There was no history of any systemic illness.

General and systemic examinations were normal. The best corrected visual acuity was 6/6, N6 both eyes. Anterior segment on slit lamp examination in the right eye (RE) showed an irregular anterior chamber which was shallow temporally. A smooth dark brown cystic lesion of around 2.5-3mm extending from 4-10 o’clock position, arising from the undersurface of iris, a part of which was seen in the pupillary area was seen inferotemporally (fig.1). Left eye (LE) showed a much smaller similar lesion in the infero-temporal pupillary area extending from 4-5 o’clock position (fig.2). Pupil was normal in size, shape and reaction. Fundus was normal in both eyes. IOP was 17 mm both eyes.

Anterior segment OCT (AS OCT) of both eyes showed cysts arising from posterior surface of iris extending into the pupillary area in both eyes (fig.3).

A diagnosis of mid-zonal primary pigment epithelial cyst of iris was made.

The patient was having visual complaints only in RE as the cyst was larger and was jutting out of the pupillary area encroaching the visual axis. The cyst in the RE was treated with YAG laser. Settings were same as in iridotomy, i.e. 3-5 mJ. With 2-3 shots, the cyst wall ruptured. The cyst completely disappeared with a little pigment dispersion into the anterior chamber. Topical steroids and beta blockers were given for a week. Patient was reviewed after 1 week, 1 month and 3 months. The eyes were quiet on all visits and cyst could not be seen on slit lamp or AS OCT. The visual disturbance was relieved.

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DISCUSSION
A primary iris cyst is an epithelial-lined space which involves a portion of the iris and which has no recognizable etiology. Secondary iris cysts follow surgical or non-surgical trauma. They frequently enlarge and lead to severe complications such as inflammation and glaucoma.

Primary iris cysts are divided into epithelial and stromal categories, each having different clinical characteristics. Epithelial cysts arise between the pigmented epithelial layers of the iris and are classified according to their anatomic location into central cysts (occur at the pupillary margin), midzonal cysts (in the mid-portion of the iris) and peripheral cysts (in the iridociliary sulcus). In some cases, the cysts apparently break free from their epithelial attachment and migrate into the anterior chamber or vitreous chamber (dislodged cysts).

Primary stromal cysts occur within the iris stroma and are not directly continuous with the posterior epithelium. They apparently arise from ectopic surface epithelium which is trapped in the iris during embryologic development.

A great majority of primary iris cysts, particularly those which arise from the iris pigment epithelial layer, are stationary lesions which rarely progress or cause visual complications and hence do not require any treatment.

Peripheral iris cysts sometimes lift the iris forward and cause angle closure glaucoma without pupillary block (pseudoplateau iris). These can be punctured with Argon or Nd:YAG laser.

Primary stromal cysts, usually recognized in infancy, are generally progressive, and require treatment by aspiration, cryotherapy or surgical resection.

The differential diagnosis includes iris melanoma, ciliary body melanoma and other rare tumors which arise from the iris stroma like leiomyoma, melanocytoma etc., malignant melanoma and secondary iris cysts.

In case of stromal tumors, slit lamp examination reveals a distinct mass involving the iris stroma that can be directly visualized in the anterior chamber. Some of the ciliary body tumors like medulloepithelioma can present like a peripheral iris cyst, but can be differentiated by UBM.

Iris cyst in the angle differs from a melanoma by its smooth, rounded borders and by the fact that it does not blend into, but rather displaces the iris stroma posteriorly. A nevus or melanoma in the angle is more sessile and is directly continuous with the iris stroma.

Malignant melanomas are solid, rather than cystic on slit lamp examination. Patients with secondary iris cysts usually have a history of surgical or non-surgical ocular trauma and frequently develop glaucoma, corneal edema and other complications.

REFERENCES