ORIGINAL RESEARCH PAPER

Volume-7 | Issue-7 | July-2018 | PRINT ISSN No 2277 - 8179

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

AN UNCOMMON CASE OF PRIMARY IRIS CYST WITH SECONDARY GLAUCOMA - A CASE REPORT

Ophthalmology

Dr. Meena Gopinath Menon Sankara Eye Hospital, Bangalore

Dr.Sunil Kumar Khandelwal* Sankara Eye Hospital, Bangalore *Corresponding Author

ABSTRACT

The prevalence of primary iris or ciliary body cysts ranges from 34.4%- 54.3%.1 But presentation as bilateral secondary glaucoma due to primary iris cyst is very rare occurance.2,3 We report a case of bilateral secondary glaucoma due to primary iris cyst.

KEYWORDS

Primary iris or ciliary body cysts, Secondary glaucoma

A 61-year old male presented with gradual diminution of vision in the left eye since 6 months. Best corrected visual acuity in both the eyes was 6/6 with refractive correction of -0.5 DS in right eye and -1.00 DS in left eye. Near vision was N6 with +3.00 D in both eyes. On slit lamp examination cornea was clear and anterior chamber was shallow inferiorly in right eye and inferotemporally in left eye. A pigmented mass was noted through the undilated pupil , behind the iris at 3 to 6-o'clock in left eye. (FIGURE-1) No mass was visible in the undilated rigth eye.(FIGURE -2) Intraocular pressure (IOP) was recorded at 46 mmHg in right eye and 50 mmHg in left eye with Goldmann applanation tonometer. Gonioscopy in right eye revealed open angles in all quadrants except inferiorly which showed grade 0-1 by shaffer's grading. There was evidence of peripheral anterior synechiae in inferior quadrant in right eye. Gonioscopic examination of left eye showed grade 0-1 in inferior and temporal quadrant with peripheral anterior synechiae observed inferotemporally.



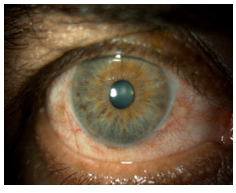


Figure 1: OS : showing iris cyst at pupillary frill
Figure 2: OD



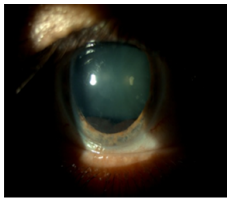


Figure 3: OD: UBM showing iris cyst
Figure 4: OS :UBM showing iris cyst

Ultrasound biomicroscopy (UBM) imaging revealed hypolucent structures with well demarcated hyperechogenic boundry suggestive of cystic lesion , on the posterior surface of the iris in inferior

quadrant in right eye and infero temporal quadrant in left eye. (FIGURE-3, 4) On dilatation iris cysts were discovered inferiorly in the right eye and inferotemorally in the left eye. (FIGURE-5,6) Fundus examination revealed cup to disc ratio (CDR) of 0.4 with healthy neuroretinal rim in right eye with 0.8 with bipolar thinning in left eye (FIGURE-7,8). Visual fields showed biarcuate scotoma in left eye and normal fields in right eye. (FIGURE-9,10).

Patient was advised both oral and topical anti-glaucoma drugs in both the eyes. (Acetazolamide 250 mg BDPC for 5 days and a fixed combination of Brimonidine 0.1% & Brinzolamide 1% and Timolol 0.5% BID topically) After 1 month IOP was 16mm Hg in right eye and 26 mmHg in left eye. We added Bimatoprost 0.01% in left eye. One month later IOP recorded 14mmHg in both eyes. After 6 month IOP was well controlled in both eyes.



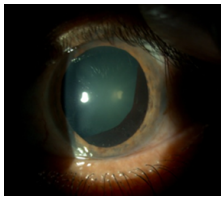
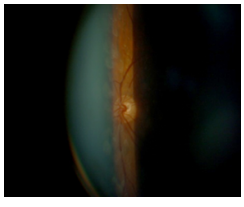


Figure 5: OD: after pupil dilatation showing iris cyst
Figure 6: OS: after dialtation showing extent of iris cyst



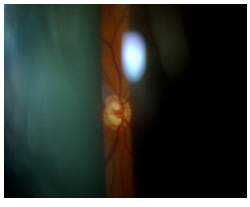
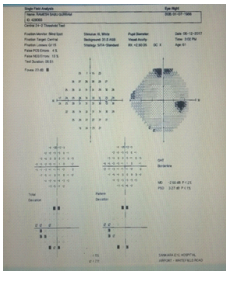


Figure 7:OD disc image by 90D
Figure8:OS Disc image by 90D



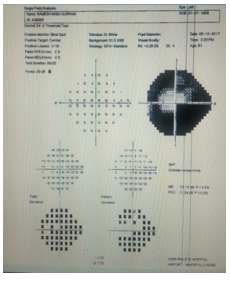


Figure 9 :OD HFA 24-2 SITA STANDARD
Figure 10:OS HFA 24-2 SITA STANDARD

DISCUSSION:

Iris cysts have been classified into primary and secondary types. A primary iris cyst is an epithelial-lined space which involves a portion of the iris and which has no recognizable etiology.[4] Secondary iris cysts follow surgical or non-surgical trauma. Primary iris cysts are divided into epithelial and stromal categories[5]. 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).

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).[6]

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.[7]

Diagnosis and monitoring of iris and ciliary body cyst require the imaging of structures. UBM is still the best useful tool to differentiate cystic from solid tumors.[8] It is difficult to detect cysts by slit-lamp biomicroscopy or gonioscopy due to their hidden location. Ultrasound biomicroscopy (UBM) plays an important role in examining the anterior segment anatomy, including retro-iridial structures and ciliary processes, owing to its high resolution and noninvasive nature.[1]

Treatment-

Some cases of the secondary glaucoma due to iris cysts , initially respond well to antiglaucoma medications

In our patient since only one or two quadrants of angles were occluded, so peripheral iridotomy was deferred in both the eyes. IOP was controlled with topical antiglaucoma medications only. But it is important to followup these patients to observe creeping angle due to cysts and peripheral anterior synechiae which may require surgical intervention.

Peripheral iridotomy prove to be ineffective for angle opening and IOP control in most cases.[9] When the visual axis is compromised, surgical excision or laser application remain the most commonly employed treatments.[10]

REFERENCE-

1. Bing-hong Wang, and Yu-feng Yao. Effect of primary iris and ciliary body cyst on anterior chamber angle in patients with shallow anterior chamber. J Zhejiang Univ Sci B. 2012 Sep; 13(9): 723–730
2. Ravi Thomas MD . Angle closure glaucoma due to iris and ciliary body cysts. Australian and New Zeaiand Journal of Ophthalmology 1989
3. Hidenobu Tanihara et al, Angle closure caused by multiple, bilateral iridociliary cysts. Acta Ophthalmol. Scand. 1997: 75: 216-217
4. Shields J A: Primary cysts of iris, Transactions of the American Ophthalmological Society,1981; Vol. 79: 771– 809
5. J. Shields, C. Shields, N. Lois, and G. Mercado: Iris cysts in children-classification, incidence and management ,Br J Ophthalmol. 1999 March; 83(3): 334–338
6. Stamper,Lieberman, Drake: Becker –Schaffer's Diagnosis and Therapy of the Glaucomas, 2010
7. Girija K MS .Primary Iris Cyst: A Case Report . Kerala Journal of Ophthalmology
8. Konstantopoulos A, Hossain P, Anderson DF. Recent advances in ophthalmic anterior segment imaging: a new era for ophthalmic diagnosis? Br J Ophthalmol. 2007; 91:551–557
9. Tiago Ribeiro Schmalfuss, Egidio Picetti, Helena Messinger Pakter, Glaucoma due to ciliary body cysts and pseudoplateau iris: a systematic review of the literature. Arq Bras Oftalmol. 2018;81(3):254-61
10. Bruner WE, Michaels RG, Stark WJ, Maumenee AE. Management of epithelial cysts of the anterior chamber. Ophthalmic Surg. 1981;12:279-85