Scholars Journal of Medical Case Reports
Abbreviated Key Title: Sch J Med Case Rep
ISSN 2347-9507 (Print) | ISSN 2347-6559 (Online)
Journal homepage: https://saspublishers.com

OPEN ACCESS

Ophthalmology

Unilateral Iridoschisis: A Case Report

Fiqhi Aissam[1*], Boukssim Mohammed[1], Moumen Hanane[1], Jeddou Imane[1], Elkhoyaali Adil[1], Mouzari Yassine[1]

[1]Department of Ophthalmology, Mohammed V Military Teaching Hospital, Mohammed V University, Faculty of Medicine, Rabat, Morocco

DOI: https://doi.org/10.36347/sjmcr.2026.v14i01.021 | **Received:** 03.11.2025 | **Accepted:** 06.01.2026 | **Published:** 14.01.2026

***Corresponding author:** Fiqhi Aissam
Department of Ophthalmology, Mohammed V Military Teaching Hospital, Mohammed V University, Faculty of Medicine, Rabat, Morocco

Abstract | **Case Report**

Iridoschisis is a rare disease. The name iridoschisis means separation of the iris into two layers and multiple rupture of the iris fibers. Iridoschis occures during the sixth and seventh decade. The iris stroma is cleaved into two layers: the anterior layer is disintegrated into fibrils floating freely into the anterior chamber, and the posterior layer stays attached to the dilator muscle and to the pigment epithelium. Iridoschisis is usually bilateral. It is often associated with cataract and glaucoma. Therefore, long term and regular follow-up is required. We report a case of a 74 -year-old male who presents an unilateral iridoschisis.

Keywords: Iridoschisis, Iris atrophy, Glaucoma, Cataract, Anterior chamber, Age-related.

INTRODUCTION

Iridoschisis is a rare disease [1]. It was first described by A. Schmitt in 1922 [2]. The name iridoschisis means separation of the iris into two layers and multiple rupture of the iris fibers. Iridoschis occures during the sixth and seventh decade. The iris stroma is cleaved into two layers: the anterior layer is disintegrated into fibrils floating freely into the anterior chamber, and the posterior layer stays attached to the dilator muscle and to the pigment epithelium. Iridoschisis is usually bilateral. It is often associated with cataract and glaucoma. Therefore, long term and regular follow-up is required [3, 4].

CASE REPORT

A 74 -year-old male presented for progressive decrease in vision routine. His past eye history was negative. He had no history of inflammation, ocular trauma or heritable disease. The best corrected visual acuity was 9/10 in both eyes. Slit-lamp examination revealed inferior iridoschisis from 5 to 7 o'clock in the left eye (Fig. 1 and 2). The iris of the right eye presented a circumferencial peripheral small areas of iris atrophy in the inferior quadrants with no real cleavage of the iris stroma (Fig. 3). A cortical cataract was noticed bilaterally. The iridocorneal angle was open and the itraocular pressure was 15mmhg in both eyes. Fundus examination was normal, with no optic disc alterations.

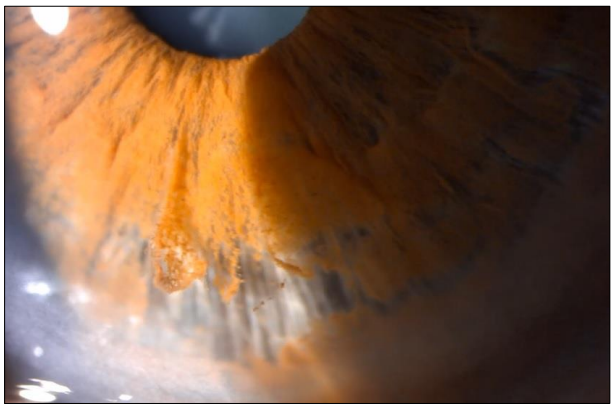

Fig. 1

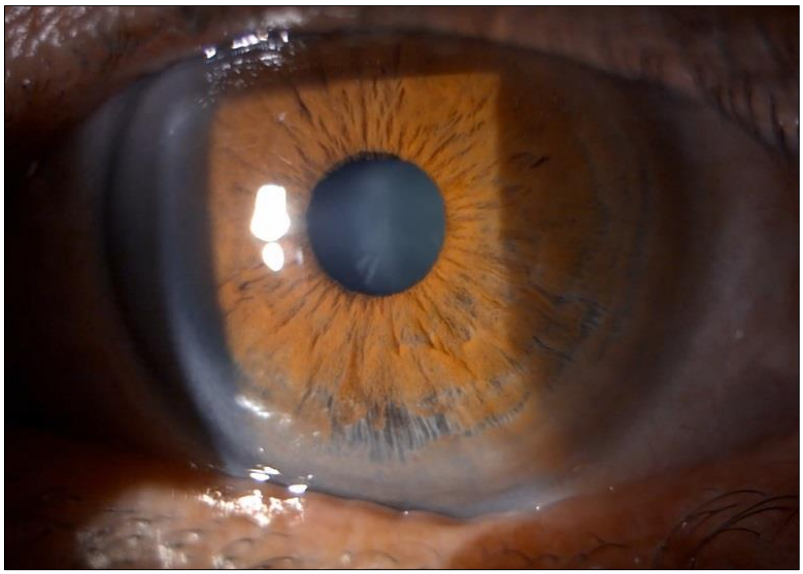

Fig. 2

Figure 1 and 2: Inferior iridoschisis of the left eye, from the 5 to 7 o'clock. The iris stroma is cleaved into two layers: the anterior and posterior layers.

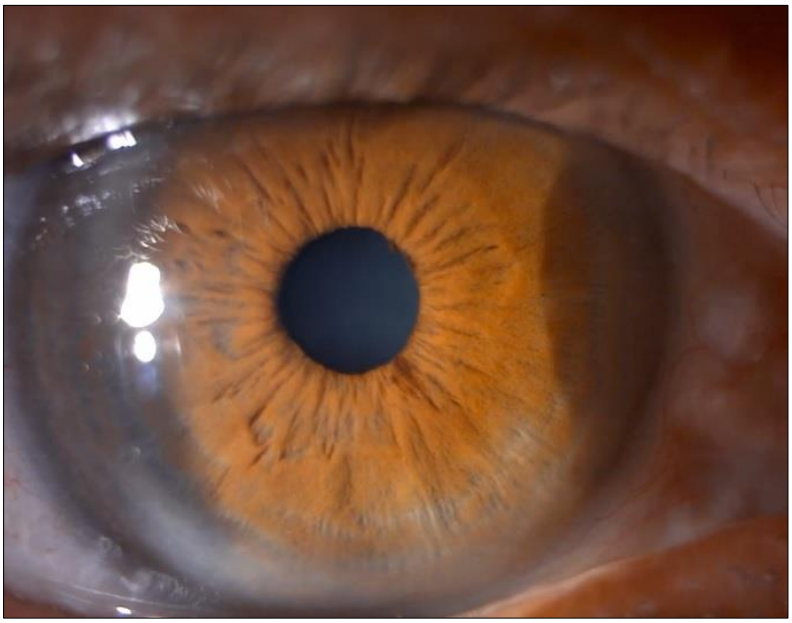

Figure 3: The iris of the right eye showed a circumferencial peripheral small areas of iris atrophy in the inferior quadrants with no real cleavage of the iris stroma

DISCUSSION

Iridoschisis is marked by the separation of the anterior and posterior stroma of the iris. The anterior layer typically consists of a loose arrangement of numerous pigmented and white atrophic strands that extend in various directions, primarily from the periphery toward the collarette [4]. More than 100 cases of iridoschisis have been documented in the literature. While various hypotheses have been proposed, a definitive theory regarding its pathogenesis or etiology has not yet been established [5]. Lowenstein and Foster proposed that the separation of the iris in this particular plane may have an anatomical basis, suggesting that there could be an atrophic effect from lytic substances present in the aqueous humor, which may stem from a glaucomatous condition, or that it might be linked to age-related changes [6]. This particular theory has gained support from others who suggest that, as individuals age, there is an increase in the sclerosis of the irideal blood vessels. This change may create a shearing force during the dilation and constriction of the iris, leading to tearing and separation between the anterior and posterior iris stroma [7]. Ischemia alone is unlikely to play a significant role in the development of iridoschisis, as demonstrated by fluoroiridography studies that have shown normal blood vessel perfusion in the affected

areas of the iris, although the endothelial lining of some of them might be swollen. An important aspect of iridoschisis is its frequent association with glaucoma, with approximately two-thirds of reported cases occurring in conjunction with this condition. Salmon and Murray conducted a study involving patients with iridoschisis and concurrent primary angle-closure glaucoma to explore the clinical features of this condition and its relationship to primary angle-closure glaucoma. Their findings suggest that iridoschisis represents an unusual manifestation of iris stromal atrophy, resulting from intermittent or acute increases in intraocular pressure. They recommended that primary angle-closure glaucoma be ruled out in patients presenting with iridoschisis [8]. Additionally, Romano *et al*., noted that iridoschisis often precedes episodes of angle closure [9]. Different cases of association between iridoschisis and plateau iris configuration have been reported and evidenced by ultrasound biomicroscopy which suggests that iridoschisis might be a part of a general anterior anatomic malformation of ocular structures, together with plateau iris configuration [10, 11]. There is a case report detailing a family with iridoschisis, which was found to be accompanied by narrow anterior chambers and presenile cataracts. This report proposed that the condition may follow an autosomal dominant inheritance pattern, indicating that family members of affected individuals should undergo screening [12]. There have also been several reported cases of iridoschisis associated with interstitial keratitis due to syphilis [13-15].

CONCLUSION

The presence of iridoschisis serves as a warning for ophthalmologists to rule out any association with glaucoma, as approximately two-thirds of patients with iridoschisis also have glaucoma. Furthermore, there is a possibility that the patient may develop glaucoma in the future, necessitating standard glaucoma assessments along with regular follow-up. Conflict of Interest: The authors declare that they have no conflict of interest.

Funding: This study received no specific financial support

Disclosure of Potential Conflicts of Interest: The authors declare no potential conflicts of interest

Informed consent was obtained from patients included in this study

REFERENCES

1. Aaberg, T.; Nelson, M. Iridoschisis and cataract in a juvenile patient with periocular eczema. JCRS Online Case Rep. 2017, 5, 54–57.
2. Schmitt, A.: Ablosung des vorderen Irisblattes. Klin. Monatsbl. f. Augenli., 58:214-215, 1922.
3. Laaribi N, Ajhoun Y, Ouattassi NE, Chammout FZ, Hanafi Y, Asri FE, Reda K, Oubaaz A. Iridoschisis : un glaucome à dépister et une phacoémulsification particulière [Iridoschisis: A glaucoma to screen for and an unusual phacoemulsification]. J Fr Ophtalmol. 2017 Oct;40(8):e299-e301.
4. Gogaki E, Tsolaki F, Tiganita S, Skatharoudi C, Balatsoukas D:.Iridoschisis: case report and review of the literature. Clin Oph-thalmol (Auckland, NZ) 2011;5:381—4.
5. Pieklarz, B., Grochowski, E. T., Saeed, E., Sidorczuk, P., Mariak, Z., & Dmuchowska, D. A. (2020). Iridoschisis-A systematic review. Journal of Clinical Medicine, 9(10), 3324.
6. Nirankari MS, Singh D, Parkash OM. Iridoschisis. J All India Ophthalmol Soc. 1964;12:29–31.
7. Albers EC, Klien BA. Iridoschisis: A clinical and histopathologic study. Am J Ophthalmol. 1958;46:794–802.
8. Salmon JF, Murray AD. The association of iridoschisis and primary angle-closure glaucoma. Eye (Lond). 1992;6:267–272.
9. Mills PV. Iridoschisis. Br J Ophthalmol. 1967;51:158–164
10. Shima C, Otori Y, Miki A, et al. A case of iridoschisis associated with plateau iris configuration. Jpn J Ophthalmology. 2007;51:390–391.
11. A presentation of iridoschisis with plateau iris: an imaging study Laura Paniagua, MD, Manuel F Bande MD, María Teresa Rodríguez-ares MD PhD & Antonio Piñeiro, MD PhD
12. Mansour AM. A family with iridoschisis, narrow anterior chamber angle, and presenile cataract. Ophthalmic Paediatr Genet. 1986;7:145–149
13. Foss AJ, Hykin PG, Benjamin L. Interstitial keratitis and iridoschisis in congenital syphilis. J Clin Neuroophthalmol. 1992;12:167–170.
14. Salvador F, Linares F, Merita I, et al. Unilateral iridoschisis associated with syphilitic interstitial keratitis and glaucoma. Ann Ophthalmol. 1993;25:328–329.
15. Pearson PA, Amrien JM, Baldwin LB, et al. Iridoschisis associated with syphilitic interstitial keratitis. Am J Ophthalmol. 1989;107:88–90.