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A CASE REPORT OF BILATERAL POSNER-SCHLOSSMAN SYNDROME: A RARE PRESENTATION OF RECURRENT GLAUCOMATOCYCLITIC CRISIS

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ABSTRACT

Background: Posner-Schlossman syndrome is a rare condition characterized by recurrent attacks of mild anterior chamber reaction with sever ocular hypertension. In most of the cases it is unilateral. **Aim:** to report a case of bilateral Posner-Schlossman syndrome. **Case Report:** we report a case of 34 years old male who was attending to the ophthalmology clinic in Prince Rashid Bin Alhassan military hospital and King Hussein Medical Center between January 2023 and October 2025. The patient had repeated six attacks of mild anterior uveitis and sever ocular hypertension in the left eye between January 2023 and February 2025. In September 2025 he developed similar attack in the right eye. **Conclusion:** Posner Schlossman syndrome is a rare condition of uveitis presenting with mild anterior uveitis with sever ocular hypertension. Other uveitis conditions with similar presentations should be excluded. It is usually unilateral but bilateral presentation of Posner Schlossman might occur.

KEYWORDS: Posner Schlossman syndrome, Uveitis, Glaucoma.

INTRODUCTION

Posner-schlossman syndrome is one of the uveitis conditions which is characterized by recurrent attacks of anterior segment inflammation.[1] The uveitis itself is usually mild without any serious ocular complications that may have adverse impact on vision.[2] However, the associated elevated intra ocular pressure which is usually marked may result in visual field defect due to damage to the retinal nerve fibers.[3] The exact etiology of Posner-schlossman syndrome is still unknown. However, cytomegalovirus was thought to be implicated in the development of the disease since it was isolated at higher rates in the affected eyes.[4,5] The disease is usually unilateral in more than 90% of cases.[6] The exact prevalence in the world is not well studied since it is very rare. However, it was estimated to be 0.004% in India and 1.9 per 100,000 in Finland.[7,8]

It usually presents with symptoms of anterior uveitis like eye pain, redness, and photosensitivity in addition to signs and symptoms of the tremendous increase in intra ocular pressure like pain, decreased vision, halos, and corneal edema.[9] The mainstay treatment of Posner Schlossman syndrome is to achieve patient's comfort by treating uveitis and to control intraocular pressure so as to prevent ocular morbidity of the disease. Therefore, topical steroids and antiglaucoma medications are the primary treatment of Posner Schlossman syndrome. Rarely, laser therapy and surgical interventions might be needed mainly when intra ocular pressure is not well controlled with topical antiglaucoma medications.[10]

The aim of this study is to report a case of bilateral Posner-Schlossman syndrome since bilateral presentations of Posner Schlossman syndrome is extremely rare.

CASE REPORT

We report a patient who is 34 years old male not known to have any previous medical illnesses. His ocular history started in January 2023 when he attended to the ophthalmology clinic complaining of severe left eye pain

associated with redness and blurred vision with no previous similar attacks. On examination he was found to have left best corrected visual acuity (BCVA) of 0.1 using Snellen chart with ciliary injection, corneal edema, inferior keratic precipitates (KPs), +1 anterior chamber (AC) cells, +1 flare, no posterior synechia, no iris atrophy, clear lens. Posterior eye segment could not be visualized and the intra ocular pressure was markedly elevated at 53 mmHg measured by Goldmann applanation tonometry. The right eye examination was normal including anterior and posterior segment, gonioscopy and IOP measurement. The patient was started on topical steroids (Predforte eye drops 1.0%) six times daily, topical cyclopentolate twice daily, topical combined timolol 0.5% and dorzolamide 2% twice daily, topical brimonidine 0.15% twice daily, and Diamox tablet 250 mg three times daily. Laboratory investigations were ordered including; CBC, ESR, CRP, ANA, RF, QuantiFERON test, ACE, RPR, Toxoplasmosis titer, HSV titer, HZV titer, CMV titer, and AC tap for PCR of CMV and HSV. All of those investigations were normal so the diagnosis of Posner Schlossman was established. Five days later, the patient reported improvement in symptoms including pain, redness and vision. On examination he was found to inactive KPs, no AC cells or flare, clear lens, and normal fundus examination including optic disc and macula. Gonioscopy exam revealed widely open angle at grade IV. The IOP improve to 28 mmHg. After one month the patient continued to have normal eye examination and IOP went back to normal at 16 mmHg. The patients attended to the ophthalmology clinic having similar left eye attacks of +1 to +2 AC reaction with +1 flare and marked elevation in IOP at a level ranging between 45 to 57 mmHg in June 2023, November 2023, May 2024, October 2024, and February 2025 with normal right eye examination. In April 2025, he was found to have moderate visual field defect on HVF 24-2 test, and thinning of RNFL on OCT and optic disc cup (CD) ratio at 0.75 with IOP of more than 30 mmHg despite the absence of inflammation and the use of antiglaucoma medications. Therefore, Ahmed glaucoma valve was inserted in the left eye in May 2025 and since that time antiglaucoma medications were stopped without and incidence of inflammation or similar attacks. In September 2025 he started to have severe pain in the right eye with redness and photophobias. On examination he was found to have BCVA of 0.15 with corneal edema, KPs at the middle and inferior part of the cornea, +2 AC cells, +1 flare, limited view of the Posterior eye segment and IOP at 48 mmHg. The left eye examination had no AC reaction with normal IOP. The patient was started on topical steroids six times daily, combined timolol 0.5% and dorzolamide 2% twice daily, topical brimonidine 0.15% twice daily, and Diamox tablet 250 mg three times daily. Laboratory investigations were repeated including; CBC, ESR, CRP, ANA, RF, QuantiFERON test, ACE, RPR, Toxoplasmosis titer, HSV titer, HZV titer, CMV titer, and AC tap for PCR of CMV and HSV. All of which were within normal limits. One week later, the patient pain, and photophobia resolved with normal eye examination including gonioscopy and IOP decreased to 14 mmHg. HVF 24-2 and OCT of the optic nerve were normal with CD ratio at 0.1. Gonioscopy for the right eye revealed widely open angle at grade IV.

DISCUSSION

Posner Schlossman is one of the rare uveitis conditions in ophthalmology characterized by marked elevation of IOP when there is an attack of anterior uveitis. Anterior uveitis usually presents with low IOP as a result of decreased aqueous production by the ciliary body attributed to ciliary shutdown. However, in rare uveitis conditions anterior uveitis may become associated with ocular hypertension including; herpetic anterior uveitis, Fuch's uveitis, and Posner Schlossman syndrome.[11,12,13] All of these conditions characterized by unilateral presentation in most cases.

The associated elevation of IOP is thought to be caused by inflammation of the trabecular meshwork which is responsible for the drainage of the aqueous from the anterior chamber to outside the eye.[14]

In this case the acute attacks of uveitis and ocular hypertension of the left were successfully treated by topical steroids and anti-glaucoma medications including Beta blockers, carbonic anhydrase inhibitors, and alpha-2 agonist which decrease the aqueous production and enhance uveoscleral aqueous outflow. However, the repeated attacks of ocular hypertension and uveitis resulted in glaucomatous damage to the optic nerve which was detected by HVF 24-2 test and OCT of the optic nerve in April 2025. When the IOP was not adequately controlled in the left eye with topical and systematic anti glaucoma medication AGV drainage device was inserted which resulted in satisfactory control of IOP. AGV drainage device was preferred over trabeculectomy since the glaucomatous damage was not sever and the repeated attacks of uveitis may result in adhesions and subsequent failure of surgery.[15] Unexpectedly, in September 2025, the patient started to have a similar attack in the right eye. Laboratory investigations was repeated to explore whether we are dealing with another uveitis conditions or not. When all of the investigation reported normal results, the diagnosis of bilateral Posner Schlossman syndrome was made despite there was a relatively long-time interval before the involvement of the fellow eye.

CONCLUSION

Posner Schlossman syndrome is a rare condition of uveitis and should be kept in mind when there is a mild anterior uveitis with sever ocular hypertension. Other uveitis conditions with similar presentations should be excluded. Although it is extremely rare, bilateral presentation of Posner Schlossman might occur.

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