

BRINZOLAMIDE-INDUCED EYE DISCHARGE: A RARE ENTITY**SULATHA V BHANDARY, KRISHNA RAO A*, AKSHAY SEHGAL, HARISH THANUSUBRAMANIAN**

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ABSTRACT

A 62-year-old lady diagnosed to have normal tension glaucoma was receiving triple therapy of topical brinzolamide, timolol, and careprost. Post application of brinzolamide eye drops patient experienced mucoid eye discharge starting 10 minutes after application of eye drops and persisting for ½ hr. Slit lamp examination findings did not reveal any signs of infection. She gave a history of mucoid discharge since the day she was started on brinzolamide eye drops. There are only two case reports describing mucoid discharge following brinzolamide eye drops. Thus, we report a similar scenario in our patient. We report this case so as to avoid unnecessary suspicion of infection in such cases.

Keywords: Glaucoma, mucoid, infection.**INTRODUCTION**

Brinzolamide is a carbonic anhydrase inhibitor which lowers the intraocular pressure and thus used in the treatment of glaucoma. Brinzolamide works by inhibiting carbonic anhydrase (isoenzyme II), which is found in the ciliary body epithelium. This reduces the formation of bicarbonate ions, which reduces fluid transport and, thus, intraocular pressure (IOP). Brinzolamide is usually used in a concentration of 1% twice to thrice daily for the treatment of glaucoma. Stinging on instillation of the drops, ocular allergy, and sensitivity are the most common side effects noted with topical brinzolamide [1]. However, there are only two case reports describing mucoid discharge following brinzolamide eye drops.

CASE REPORT

A 62-year-old lady was diagnosed to have normal tension glaucoma. Her glaucoma was well under control with three medications (brinzolamide [carbonic anhydrase inhibitor], timolol [beta-blocker], and careprost [prostaglandin analogue]) in both the eyes. She was taking brinzolamide eye drops three times a day, timolol twice a day, and careprost once a day in both eyes.

The patient was posted for cataract surgery. On pre-operative slit lamp examination, we saw mucoid discharge in lower fornix of both her eyes. A suspicion of ocular infection was made. However, on questioning about the discharge, she expressed that she was having this discharge for the past 8 months. That is from the day of starting brinzolamide eye drops. The patient complained of mucoid discharge from both eyes predominantly 10 minutes after each drop of brinzolamide. The discharge would last for ½ hr. On lacrimal syringing, the lacrimal system was found to be patent on both sides. As there was no redness, no matting of eyelashes, and no other signs of infection, cataract surgery was performed. Post-operative period was uneventful (Fig. 1).

Culture and cytology of discharge

The mucoid discharge was sent for culture and did not reveal the growth of any organism. The discharge was also sent for cytological examination, which revealed predominant epithelial cells with no bacteria or eosinophils seen.

Management

The patient underwent cataract surgery and the post-operative period was uneventful. However, the patient was under the cover of additional antibiotic (tobramycin eye drops 6 times per day for 2 weeks) as a safety measure. Although we were aware of the mucoid discharge following brinzolamide eye drops, we had a fear of infection (endophthalmitis) in the operated eye.

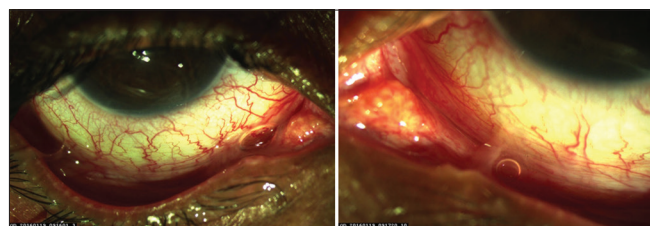


Fig. 1: Mucoid discharge collected in the lower fornix of (a) right eye (b) left eye

DISCUSSION

Brinzolamide is a carbonic anhydrase inhibitor used in the treatment of glaucoma. It works by inhibiting the bicarbonate ions on the ciliary epithelium. It reduces the formation of bicarbonate ions which reduces fluid transport and reduces IOP [2].

Inoue *et al.* in his study showed discharge in one patient when he switched from dorzolamide to brinzolamide therapy [3]. 6 months result from a phase 3 trial of brinzolamide revealed that eye discharge was one of the side effects which led to the discontinuation of the treatment [4]. Thus, very few reports of brinzolamide-induced mucoid eye discharge have been reported, which keeps the ophthalmologist still in dilemma when treating such patients. As ocular infection is the most common cause of ocular discharge, it is important to rule out any source of infection. However, the ophthalmologist should be aware of this rare entity as it saves unnecessary postponement of surgery and over use of antibiotics when not indicated.

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