

## A CASE OF SELF-INDUCED ACUTE HYDROPS IN A PATIENT WITH IMPULSE CONTROL DISORDER ASSOCIATED WITH COMPULSIVE EYE TRAUMA

R. Bindu Madhavi<sup>1</sup>, H. N. Soumya<sup>2</sup>

<sup>1</sup>Senior Resident, Department of Ophthalmology, Bangalore Medical College & Research Institute, Bangalore.

<sup>2</sup>Senior Resident, Department of Ophthalmology, Bangalore Medical College & Research Institute, Bangalore.

---

### ABSTRACT

---

#### PURPOSE

To describe acute hydrops in a patient with impulse control disorder (not otherwise specified) secondary to self-induced repetitive eye trauma.

#### METHODS

A 22-year-old male patient was referred from a psychiatrist with a diagnosis of impulse control disorder not otherwise specified (compulsive impulse self-mutilating behaviour) for opacity and watering of both eyes (left eye more than right eye). Left eye showed features of acute hydrops with Descemet's tear and right eye showed corneal opacity with Descemet's tear (status post hydrops).

#### RESULT

The patient was prescribed cycloplegics, hypertonic saline for left eye and was advised against scratching the eye and was given protective goggles and was told for close followup in conjunction with psychiatric management.

#### CONCLUSION

Impulse control disorders are relatively common psychiatric conditions, yet are poorly understood by clinicians, patients suffering from the disorder and public. And hence identification of this disorder and close observation of patient allows for avoiding complications such as progression of hydrops, perforation and infection.

#### KEYWORDS

Acute corneal hydrops, Eye rubbing, Impulse control disorder, Corneal hydrops.

---

**HOW TO CITE THIS ARTICLE:** Madhavi RB, Soumya HN. A case of self-induced acute hydrops in a patient with impulse control disorder associated with compulsive eye trauma. *J. Evid. Based Med. Healthc.* 2016; 3(26), 1207-1208.

DOI: 10.18410/jebmh/2016/278

---

**INTRODUCTION:** Impulse control disorders (ICDs) are a group of psychiatric disorders characterized by disruptive behaviour or failure to inhibit temptations or impulses that may harm oneself or others.<sup>1</sup> These disorders are characterized by difficulty in emotional and behavioural self-control. Few conditions that are included in ICDs are intermittent explosive disorder, pathological gambling, pyromania, kleptomania and others. They can also coexist with other psychiatric conditions like Parkinson's disease, obsessive compulsive disorder, bipolar disorder and others. The signs and symptoms of impulse control disorder vary depending upon age, sex and the type of impulse control that the patient is suffering. ICDs are most commonly seen in adolescents and adults, and cause significant morbidity and mortality.

**CASE REPORT:** A 22-year-old male patient was referred to us from a psychiatrist with a diagnosis of impulse control

*Submission 07-03-2016, Peer Review 21-03-2016,*

*Acceptance 29-03-2016, Published 31-03-2016.*

*Corresponding Author:*

*Dr. R. Bindu Madhavi,*

*Minto Eye Hospital,*

*Bangalore Medical College & Research Institute,*

*Chamrajpet, Bangalore-560018.*

*E-mail: bindunayana09@gmail.com*

*DOI: 10.18410/jebmh/2016/278*

---

disorder not otherwise specified (compulsive impulse self-mutilating behaviour) for corneal opacity and watering of both eyes. Patient's brother gave a history that patient used to constantly injure/mutilate his eyes with his fingers for the past one year, along with hitting his head to the wall. There was no history of itching.

On examination, right eye visual acuity was counting fingers 2 metres and showed diffuse central corneal opacity with Descemet's tear (status post hydrops) and left eye had vision of hand movements with congestion, corneal oedema and increased corneal thickness suggestive of acute hydrops. (Fig. 1, 2). Posterior segment was within normal limits.

AS-OCT of right eye also showed Descemet's tear with status post hydrops and left eye showed corneal oedema and Descemet's tear was difficult to localise. (Fig. 3, 4).

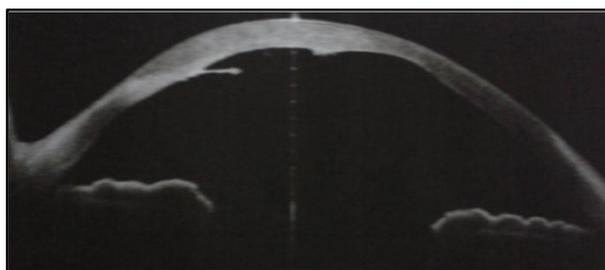
**RESULT:** The patient was prescribed cycloplegics eye drops, hypertonic saline for left eye and was advised against rubbing the eye and was given protective goggles and was told for close followup along with psychiatric management.



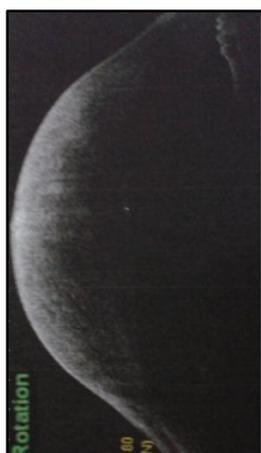
**Fig. 1: Right eye showing corneal opacity following hydrops**



**Fig. 2: Acute hydrops**



**Fig. 3: AS OCT of right eye showing Descemet's tear**



**Figure 4: AS OCT of left eye showing corneal oedema**

**DISCUSSION:** The main feature of ICDs are difficulty in resisting urges to engage in behaviours that are excessive and harmful to oneself or others. ICDs as a whole have been

understudied and under researched. They are often unrecognised in clinical settings and this leads to suboptimal treatment. Hence efforts to identify these disorders are necessary to enhance treatment. The different treatment options for ICDs are psychosocial and pharmacological treatment.

Mechanical trauma has been implicated in the pathogenesis of hydrops and the proposed mechanisms include increased apoptosis and increased oxidative damage.<sup>2</sup> Responses to eye rubbing also include high hydrostatic tissue pressure and changes to keratocytes and hence scar formation.<sup>2</sup>

Our findings support the concept that chronic mechanical trauma to the cornea may contribute to the development of acute hydrops. Acute hydrops and keratoconus have been reported following eye rubbing due to allergic disorders.<sup>3</sup>

Eye rubbing has also been associated with trisomy 21; Tourette's disorder; and Leber's tapeto-retinal degeneration.<sup>4,5</sup>

To the best of our knowledge, acute hydrops has not been reported in a patient with impulse control disorder.

**CONCLUSION:** Impulse control disorders are relatively common psychiatric conditions, yet are poorly understood by clinicians, patients suffering from the disorder and common people. The behaviours associated with these conditions can cause a great deal of distress to the patients and their families.

This unusual disorder indicates that the patient's compulsive behaviour compromised both of his corneas and led to bilateral hydrops.

And hence identification and correct diagnosis of this disorder and close observation of patient is necessary for avoiding complications such as loss of vision, progression of hydrops, perforation and infection.

#### REFERENCES:

1. Schreiber L, Odlaug BL, Grant JE. Impulse control disorders: updated review of clinical characteristics and pharmacological management. *Front Psychiatry* 2011;2:1.
2. Charles W McMonnies. Mechanisms of rubbing-related corneal trauma in keratoconus. *Cornea* 2009;28(6):607-615.
3. Koenig SB. Bilateral recurrent self-induced keratoconus. *Eye Contact Lens* 2008;34(6):343-4.
4. Artemios Kandarakis, Michael Karampelas, Vasileios Soumplis, et al. A case of bilateral self-induced keratoconus in a patient with Tourette's syndrome associated with compulsive eye rubbing: case report. *BMC ophthalmology* 2011;11:28.
5. Mashor RS, Kumar NL, Ritenour RJ, et al. Keratoconus caused by eye rubbing in patients with Tourette syndrome. *Can J Ophthalmol* 2011;46(1):83-6.