Case study

Urrets-Zavalia Syndrome after Penetrating Keratoplasty: a case report

Abstract:

Urrets-Zavalia syndrome is a dreaded complication of anterior segment surgery and the most common in patients undergoing corneal transplantation. Avoiding the prescription of mydriatic eye drops during the postoperative period is the mainstay of its therapy, which focuses on prevention. One month after having keratoplasty in the left eye, a 42-year-old man presented with Urrets-Zavalia syndrome and ocular hypertonia at 35 mmgh. Medical and surgical management were required in this situation.

The purpose of our presentation is to describe a real-world instance of Urrets-Zavalia syndrome.

Keywords: Urrets-Zavalia; Penetrating keratoplasty; Hypertonia; Mydriatics

Introduction:

The Urrets-Zavalia syndrome, which involves a lack of reflexes in the pupils followed by a gradual shrinking of the iris, has been observed as a potential consequence of penetrating keratoplasty, a procedure for a full thickness cornea transplant. It is frequently linked to ocular hypertonia. (1) (2)

Case report:

We describe a case of 42 years-old man, who underwent penetrating keratoplasty in the left eye.

He presented at the ophthalmological department one month after the operation with decreased visual acuity and a painful eye.

Ophthalmological examination revealed a limited visual acuity to counting fingers, an abolished direct and consensual photomotor reflex, and ocular hypertonia at 35 mmgh.

Examined under a slit lamp, the patient had a minor amount of corneal edema with neo-vessels, a shallow anterior chamber, pupillary fibrin membrane development, iridocorneal synechiae spanning 360 degrees, areflexic mydriasis, and an opalescent lens (figure 1).

The left eye's fundus was inaccessible, and the B-scan ultrasonography was normal.

The corneal OCT was performed to objectify a disorder of the corneal architecture, including the existence of iridocorneal synechiae and a significant drop in thickness at 452μm (figure 2).

The left eye's findings suggested a diagnosis of Urrets-Zavalia syndrome.

The case was managed by reducing IOP with hypotonic medical therapy, repairing the anterior segment surgically by releasing synechiae, removing the cyclitic membrane, and reforming the anterior chamber with a peripheral iridectomy.

Corticosteroids were used postoperatively to prevent graft rejection.

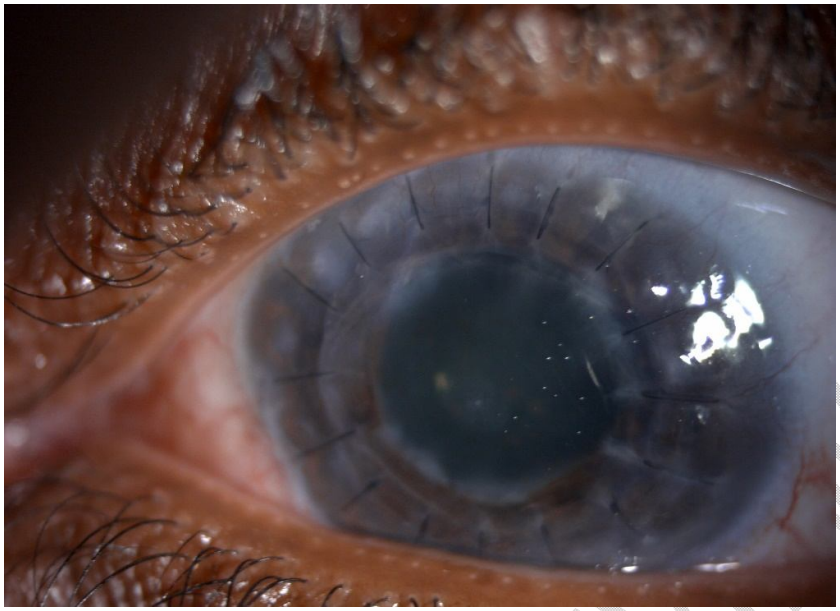

Figure 1: Slit lamp images of the anterior section of the left eye show penetrating keratoplasty; the graft's diameter was 8 millimeters, and the pupil was in reflection mydriasis due to ectropion of the posterior uvea.

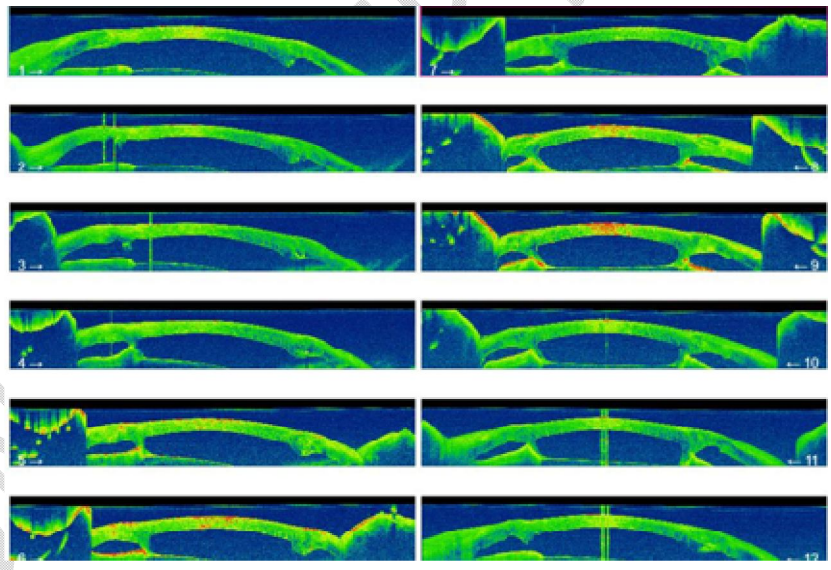

Figure 2: OCT of the anterior segment of the left eye revealing the existence of the iridocorneal synechiae and reduction in corneal thickness.

Discussion:

The Urrets-Zavalia syndrome is a permanent dilated pupil following ophthalmic surgery; It occurs after anterior segment surgery and is usually caused by a postoperative elevation in intraocular pressure (3). Glowing, haloing, and photophobia are symptoms of Urrets-Zavalia syndrome. The pupillary dilation, however, may occasionally be reversible (4). Urrets-Zavalia syndrome is still a clinical reality in corneal transplants even though it is not graft rejection and does not affect final visual acuity. (2)

Conclusion:

Urrets-Zavalia Syndrome was originally identified after a penetrating keratoplasty and has been linked to other eye surgical operations. Mydriatic drops given after surgery, a brief period of elevated intraocular pressure, or surgical trauma are common causes of this syndrome.

References:

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