Abstract Details

**Purpose:** Introducing a new sutureless technique in the treatment of aphakic patients with lack of capsular support by using a new transsclerally fixated intraocular implant with self-blocking plugs on the haptics.

**Setting:** Carlevale Eye Center, Fondi (LT). Italy.

**Methods:** Four aphakic eyes of four patients with lack of capsular support underwent a surgical procedure of scleral fixation of PC IOL implant. A new IOL designed with self-blocking plugs on the haptics was used in all the cases. Self-blocking plugs on the haptics of specially designed intraocular lens were used for the trans-scleral fixation of the implants. A 23G sclerotome was used to perforate the bed of the two opposite scleral flaps at a distance of 1.3 mm from the limbus to arrive in the ciliary sulcus. After the insertion of the intraocular lens in the anterior chamber, the self-blocking plug was grasped with a 23G vitrectomy forcep and from the ciliary sulcus was pulled out in the bed of the scleral flap. The two self-blocking plugs in the bottom of the two scleral flaps fixated the haptics of the IOL to the ciliary sulcus without using the 10-0 Prolene suture to the haptics and the bottom of the scleral flaps.

**Results:** There was no intra operative complications except for a light bleeding from the ciliary sulcus. A high visual outcome was obtained in all cases except for the first patient who had pre-existing macular scar. No plug erosion, scleral necrosis, rupture or dislocation of the implant occurred within a mean follow-up of 12 months.

**Conclusions:** The presented technique and the new IOL offers a stable and quick fixation of transsclerally fixated implants with sufficient resistance to tractive forces. By avoiding prolene suture of the IOL to the haptics and bottom of the scleral flaps, as a consequence this may reduce especially the operation time, the suture erosion and the risks of infection.