

Commentary on "Misplaced capsule tension ring in anterior chamber: A unique way of explantation"

The occurrence of misplaced capsular tension ring (CTR) in the anterior chamber in the case report by Gala and Khanna.^[1] is only second such case reported in the literature. There are two possible hypothetical reasons for this. First, a direct implantation of CTR in the anterior chamber which can happen in a widely dilated pupil with a compromised view due to a possible corneal haze. Second, as described by Little *et al.*^[2] that if CTR is being introduced in an inadequately filled capsular bag, it can hit the equatorial fornix, and with additional force, the ring can rupture through the capsule into the vitreous or be deflected forward out of the bag and into the anterior chamber (AC). This can go unnoticed, particularly in an eye with a well-dilated pupil and when the natural focus of the surgeon is on the entry point of the ring into the bag.

Conventional methods like dialing the ring in the bag using injector or manually using forceps are commonly practiced to ensure proper placement of CTR in the bag. However, in certain cases of extreme zonular weakness, the dialing technique has a high chance of snagging the CTR on the equatorial fornix causing significant shearing and a greater risk for tearing the capsule. To avoid these problems, a variation in the technique called fishtail technique was described by Angunawela *et al.*^[3] In this technique, the CTR is folded until the trailing loops overlap, forming a fish-like configuration. The apex or mouth of the fish is inserted through the incision into the capsular bag, and the remaining arms of the CTR are then placed in the bag. The technique requires no rotation of the CTR. Rixen and Oetting^[4] introduced the modification of this technique by threading a 10-0 nylon suture through the eyelet of the leading end and securing with a knot. The CTR is introduced in the anterior chamber with trailing eyelet outside the wound. The suture is then used to pull the leading end out of the wound and to get a fish-tail configuration. The advantage of this variation is that it prevents overbending of the CTR.

The presence of a foreign body in the anterior chamber angle can lead to complications such as inflammation,^[5] corneal edema,^[6] and raised intraocular pressure (IOP).^[2] Unilateral raised IOP should always alert the physician to look for secondary causes such as capsular distension syndrome causing forward movement of the intraocular lens and angle closure by pushing mechanism and hydrophobic acrylic intraocular lens in sulcus leading to pigment dispersion glaucoma.^[7] Gonioscopy becomes the most important tool to come to a definite diagnosis in these scenarios. Gonioscopy helped Gala and Khanna.^[1] to detect CTR in the angle of anterior chamber. In a case report by Saedon *et al.*,^[8] clinical diagnosis was made in the early postoperative period by the presence of the peaked pupil. CTR was confirmed by gonioscopy.

Management of CTR in the anterior chamber should always be surgical removal. The case report by Saedon *et al.*^[8] did not intervene in the follow-up of 9 months as the case did have any complication. The reason could be because only a small portion of CTR was in the anterior chamber. In the case report,^[1] they had an advantage of making trabeculectomy opening in the area corresponding to the end of CTR eyelet. For the other cases, the technique shown by Little *et al.*^[2] can be done. Here, the removal of CTR should be planned by marking the position of eyelet in the anterior chamber by gonioscopy. Bimanual technique using Sinskey hook in one hand and 20-gauge forceps in the other hand can be used to wiggle out the CTR from a side-port opening.

To conclude, misplaced CTR is a situation that can be avoided by using the correct technique of CTR insertion, and a gonioscopy is prudent in any case of raised IOP in pseudophakia that can clinch the diagnosis of CTR presence in anterior chamber so that its removal can be planned early to avoid long-term complications.

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