

Retinal injury following intravitreal injection of a dexamethasone implant in a non-vitrectomised eye

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Key words: Dexamethasone implant, retinal injury, non vitrectomised eye

A 60-year-old gentleman was being treated with us for persistent CME secondary to macular Branch Retinal Vein Occlusion (BRVO) in left eye. His visual acuity at presentation was 20/20 in OD and 20/40 in OS. Anterior segment was within normal limits. Fundus examination of OD was normal and OS revealing PVD, superficial haemorrhages and a sclerosed vessel with macular edema. OCT showed cystoid spaces with SFD and a CMT of 554 microns. The patient was initially given a course of five intravitreal Avastin injections over a period of eight months during which his CMT varied at each visit. With inadequate response, the treatment was switched to intravitreal injection Ozurdex. On post-injection day 1, the fundus was evaluated and a small superficial hemorrhage with retinal whitening was noted two DD superior to disc [Fig. 1a] and implant was present inferiorly in the collapsed vitreous [Fig. 1b]. OCT examination through the injury site showed hyper reflective inner layers suggestive of retinal impact [Fig. 1c].

Intravitreal Dexamethasone implant is a novel approach in treatment of chronic macular edema due to central retinal vein occlusion (CRVO), branch retinal vein occlusion (BRVO). Various complication have also been noted relating to drug delivery system and injection technique such as intra lenticular insertion,^[1] intraretinal incarceration.^[2] We report a first case of Ozurdex-induced retinal injury due to the projectile nature of insertion. This is particularly an atypical complication after Ozurdex as the viscosity of vitreous humor provides resistance against the projectile velocity of an intraocular injection,^[3] the contributing factor to injury can be speculated to the presence of the PVD which contributes to the decreased resistance offered by the normal vitreous. Hence, the treating surgeon should keep

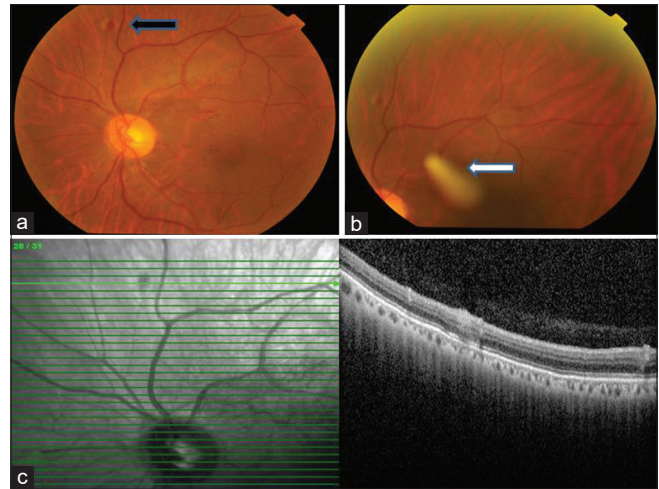


Figure 1: (a) Small superficial hemorrhage with retinal whitening two disc diameter superior to disc (Dark arrow). (b) Ozurdex implant in the vitreous cavity (white arrow). (c) OCT through the retinal injury showing hyper reflective inner layers suggestive of the site of impact

this as possibility in a non-vitrectomised eye with PVD, and post injection, prompt posterior segment evaluation should be done.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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