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# Sir, Anterior vitreous displacement of the intravitreal dexamethasone implant (Ozurdex)

Ozurdex is a biocompatible implant licensed for the treatment of cystoid macular oedema (CMO) after retinal vein occlusions. We report a case of anterior vitreous displacement of Ozurdex, discussing the possible mechanism and outcomes of it.

## Case report

A 76-year-old female patient with a right branch retinal vein occlusion (BRVO) and CMO underwent a routine intravitreal 0.7 mg dexamethasone implant injection (Ozurdex; Allergan Inc., Irvine, CA, ÛSA). Approximately one hour after the procedure, slit lamp examination and intraocular pressure (IOP) were measured. The implant was seen floating in the vitreous with normal perfusion of the central retinal artery and an IOP of 16 mm Hg. After two weeks, slit lamp examination revealed the implant sitting in the anterior vitreous, just behind the natural lens (Figure 1a). Visual acuity (VA) was 6/12. There was no lens touch. Over the next 6 weeks, the implant dispersed and floated away from the central visual axis without any ocular complications. Final VA was 6/9 and optical coherence tomography confirmed the reduction of macular oedema (Figures 1b and c).

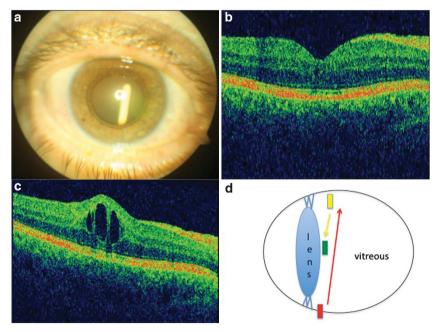


Figure 1 (a) Ozurdex implant in the anterior vitreous. (b) OCT after Ozurdex implant. (c) OCT before Ozurdex implant. (d) Schematic view of the eye explaining the final position of the Ozurdex implant. Implant was injected inferotemporal at the pars plana (red) and travelled superiorly to the vitreous (yellow) due to the high initial velocity. It then gradually migrated to the hyaloid fossa space (saucer-shaped depression between the lens and the anterior vitreous) due to drag force and gravity (green). OCT, optical coherence tomography.



#### Comment

Ozurdex release sustained levels of dexamethasone and biological activity for 6 months and very few implants are seen after 270 days. 1 Case reports of migration of the Ozurdex implant into the anterior chamber of pseudophakic patients exist.<sup>2,3</sup> Patients in whom the posterior capsule of the lens is absent or has a tear are at risk of implant migration into the anterior chamber. The muzzle velocity of the Ozurdex implant is known to have a high initial velocity at 0.8 m/s that decreases exponentially over distance especially in vitreous.<sup>4,5</sup> In our case, the implant was not immediately seen on the slit lamp examination after injection because the high velocity of the implant caused the implant to be lodged superiorly. However, as the patient did not have a posterior vitreous detachment, the implant gradually migrated into the hyaloid fossa (saucer-shaped depression between the lens and the anterior vitreous) and the implant came into view (Figure 1d). As it had not migrated into the anterior chamber, there was no risk of ocular complications such as corneal oedema. Therefore, the implant was not removed and it eventually dispersed away without causing any complications.

### Conflict of interest

The authors declare no conflict of interest.

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## Sir, Re: Adherence to NICE guidelines for new glaucoma referrals

We read with interest the correspondence by Chaudhary et al.<sup>1</sup>

The letter reviews the assessment of new glaucoma referrals and then compares this with NICE guidelines. It was noted that adherence to guidelines is varied and standards identified as requiring improvement included disc assessment with pupillary dilatation, central corneal thickness measurement (CCT), and gonioscopy among others. It was felt that the data may reflect areas of weakness in other centres and highlights areas for future training.

We have collected data over 4 years through audit of our practice compared with NICE guidelines and noted similar weakness to adherence in areas identified by Chaudhary *et al.*<sup>1</sup> To improve practice, we implemented written guidance to junior ophthalmologists before the commencement of their placement and ensured all necessary equipments were made available in the clinics by directives to the nursing staff.

This had a strong impact when we re-audited practice, with the following overall improvements noted: we found documentation of CCT at 27% (2009) vs 100% (2013), gonioscopy 39.4% (2010) vs 100% (2013), and optic disc assessment with dilatation 15.2% (2009) vs 97.2% (2013). Goldmann applanation tonometry was recorded 100% of the time in all audits and visual fields were performed 100% of the time conducted between 2010 and 2013 vs 75.8% in 2009.

Moreover, we identified poor practice in provision of information to patients and/or caregivers. An improvement from 5% (2011) *vs* 97% in 2013 was noted by initiating regular reordering of patient information leaflets.

In conclusion, our experience showed that regular written guidance to new junior ophthalmologists and better availability of equipments in clinics greatly improved the standard of glaucoma assessment. These measures may address poor adherence to NICE guidelines in other centres.

# Conflict of interest

The authors declare no conflict of interest.

# Reference

 Chaudhary R, Dhillon N, Jones L. Adherence to NICE guidelines for new glaucoma referrals. Eye 2013; 27: 571–572.

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