

Sir,  
**A case of endogenous *Clostridium perfringens* endophthalmitis in an intravenous drug abuser**  
*Clostridium perfringens*, a toxin-producing Gram-positive anaerobic bacillus, is a rare cause of fulminating suppurative endophthalmitis or panophthalmitis with grave visual outcomes. It has typically been reported after penetrating eye injuries and rarely after invasive surgeries. To our knowledge, there have been only three reported cases of *C. perfringens* endogenous endophthalmitis (EE) all in association with underlying enteric diseases. We present the first case of *C. perfringens* endophthalmitis rapidly progressing to panophthalmitis in an intravenous drug abuser (IVDA).

**Case report**

A 28-year-old IVDA presented with 24-h history of headache and left visual acuity of perception of light. He was afebrile and had no gastrointestinal symptoms and ocular trauma. He had erythematous eyelid swelling, conjunctival injection, severe uveitis, no hypopyon, fixed constricted pupil, and absent red reflex. Intra-ocular pressure was 26 mmHg. White cell count was  $15.7 \times 10^9/l$ . Diagnosis of EE was made. He underwent vitreous tap and intravitreal injection of vancomycin (2.0 mg), amikacin (0.4 mg), and amphotericin (0.005 mg) on

the same day. Unfortunately, he absconded after the procedure.

Microscopy showed Gram-positive and -negative bacilli in the vitreous sample. *C. perfringens* was the only isolate, sensitive to metronidazole. Blood culture grew coagulase-negative staphylococcus, reported to be of doubtful significance.



**Figure 1** Severe panophthalmitis with superonasal scleral abscess, and extrusion of pus from the limbus.



**Figure 2** Axial section of MRI head scan showing proptosis, enlargement of the globe, posterior dislocation of the lens, thickening of the peri-orbital soft tissue, and posterior wall of the globe in the left eye.

He returned on day 3 with hypopyon, superonasal scleral abscess, and proptosis, confirming panophthalmitis (Figure 1). Computed tomography of the orbit (Figure 2) did not reveal bony erosion or sinus involvement. Despite treatment with intravenous metronidazole and cefuroxime, the eye perforated at the limbus, requiring evisceration.

#### Comment

Rapidity of ocular destruction in *C. perfringens* infection is related to massive necrosis of ocular structures by potent exotoxins; therefore, antibiotics are unlikely to prevent this process once the infection is well established.<sup>1</sup> Although there is one documented case of successful prevention of exogenous *C. perfringens* endophthalmitis by early vitrectomy and intravitreal antibiotics,<sup>2</sup> the fulminating nature of this infection along with systemic co-morbidity often precludes operative intervention.

Blood cultures alone cannot be relied upon to establish the diagnosis of EE.<sup>3</sup> Blood culture in our patient did not isolate *C. perfringens*. We suspected the source of infection in our case to be either the contaminated needle or the access sites for intravenous injection.

There is well-known association of endogenous fungal endophthalmitis in IVDA. Our case highlights the importance of considering *C. perfringens* as a cause of endophthalmitis in an IVDA.

#### References

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#### Sir, The inadvertent administration of intralenticular triamcinolone

We read with great interest the article on 'The inadvertent administration of intralenticular triamcinolone'.<sup>1</sup> As stated in the article, penetration of the lens during intravitreal injections is an uncommon complication showing that such interventions are not risk-free. The authors should be commended for showing interesting pictures and highlighting the issue. This issue has great

significance especially with the surge in the use of intravitreal agents for retinal diseases.

I would like to report a case of a 57-year-old lady who had intravitreal triamcinolone acetate (TA) for diabetic macular oedema. The procedure was performed under local anaesthesia under aseptic conditions in the operating theatre. A 27 g needle was used to inject the 4 mg (0.1 ml) of TA. Simultaneous anterior chamber paracentesis was performed under the microscope with no apparent injury to the intraocular contents. The patient presented to the eye casualty 3 days later with a red, painful, watery eye. On examination, it was found that she had developed a cataract and raised intraocular pressure. There was lens material in the anterior chamber and hence a diagnosis of phacolytic glaucoma was made. The intraocular pressure was medically controlled. B scan revealed the site of trauma to the posterior lens capsule.

She underwent uneventful cataract surgery with intraocular lens implantation in the sulcus. Adequate precautions were taken during cataract surgery including hydrodelineation rather than hydrodissection. PC defect was evident on completing irrigation and aspiration with no vitreous loss. The surgery was completed without any further complications. Postoperative recovery was uneventful and the patient achieved good visual acuity.

This case highlights the importance of proper preoperative planning before intravitreal injections.<sup>2</sup> Conventional anterior segment surgery training teaches us to introduce instruments horizontally into the eye, which is not the same for the posterior segment surgery. The direction of the needle should always be towards the optic nerve when introducing medications into the vitreous cavity. Hence, adequate training should be given to doctors who perform this procedure especially visualisation, direction of the needle and injection of the medication as highlighted in the royal college of ophthalmologists' website.<sup>3</sup>

#### References

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