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# Management of acute onset endopthalmitis in a patient with a retained intraocular foreign body

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**Conflicts of Interest:** None

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**Purpose:**
To present a case of rapid progression to endopthalmitis in a patient with a retained intraocular foreign body (IOFB)

**Case presentation:**
A 50 year old man presented to our emergency department following penetrating intraocular injury with Intraocular Foreign Body (IOFB) that happened 36 hours ago, in a rural area. During the examination his ETDRS-decimal visual acuity was 10/10 without correction in both eyes (BE) and his right eye appeared normal. In his left eye (LE) he had a linear self-sealed full thickness corneal laceration with negative Seidel test and rupture of the anterior lens capsule. Fundoscopy revealed an IOFB incancerated on his retina with intense local inflammatory reaction and surrounding retinal oedema. Findings were recorded with ultra-wide-field (UWF) fundus photography (Figure 1).
Within three hours the patient noticed a dramatic reduction in his visual acuity. He was re-evaluated and dramatic reduction to his visual acuity at the level of Counting Fingers (CF) was confirmed. During fundoscopy evidence of retinal periphlebitis with associated vitritis was found and UWF fundus photography was repeated (Figure 2). These clinical signs were consistent with endopthalmitis. At this point surgical intervention was decided. The corneal laceration was sutured and intravitreal injections with vancomycin and ceftazidime were administered. The patient was also treated with vancomycyin, amicacin and voriconazole eye drops and intravenous moxifloxacin and voriconazole . Culture of aqueous humor was negative for the presence of microorganisms.

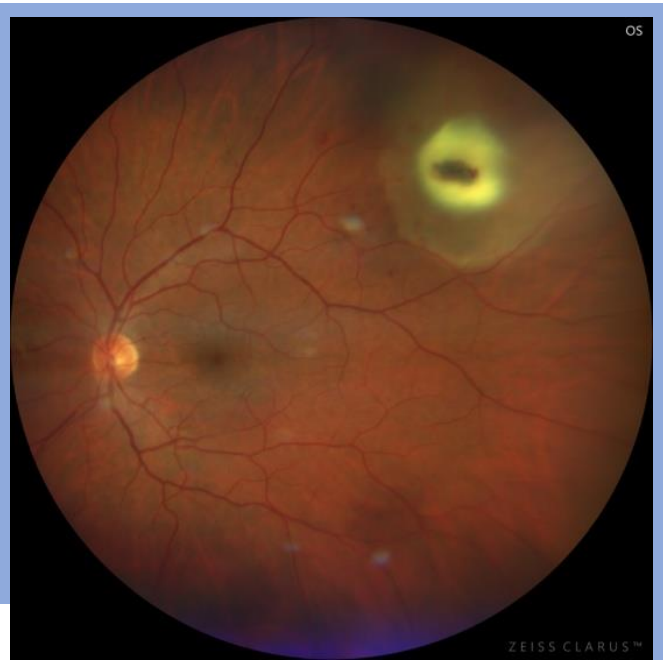


Figure 1

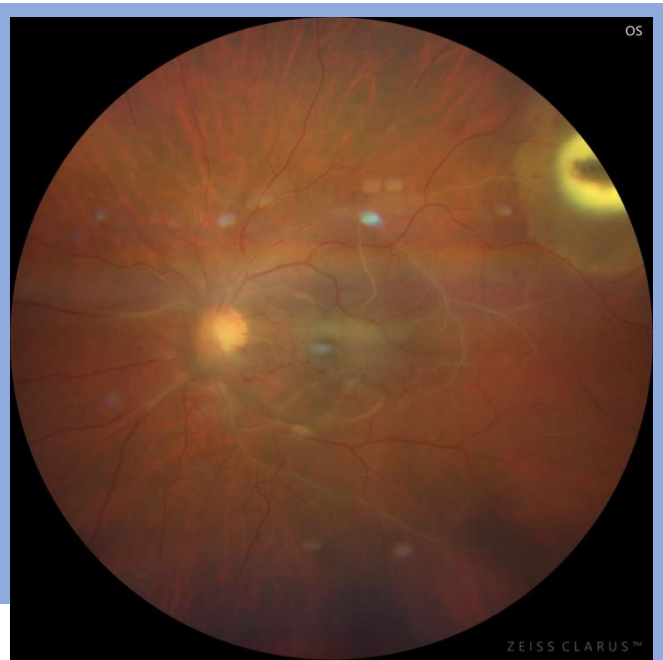


Figure 2

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**Case presentation:**

Despite the treatment endopthalmitis progressed rapidly. Further examination revealed anterior chamber hypopyon and intense vitritis. Hence a vitrectomy procedure was planned. The surgery performed included combined lensectomy-vitrectomy, removal of the IOFB, endotamponade with silicone oil and a 360 degree circumferential scleral buckle. Patient is under close follow up and one month post-operative his Best Corrected Visual Acquity (BCVA) is CF. Fundoscopy revealed an attached retina with fibrous membranes on the posterior pole. Findings were recorded with ultra-wide-field (UWF) fundus photography (Figure 3).

**Conclusion:**

- ✓ Retained IOFB with signs of endopthalmitis must be treated promptly with intravitreal antibiotics and vitrectomy for removal of the IOFB, in order to avoid the acute progression of the inflammation and retinal toxicity which worsens the already guarded prognosis.


**References:**

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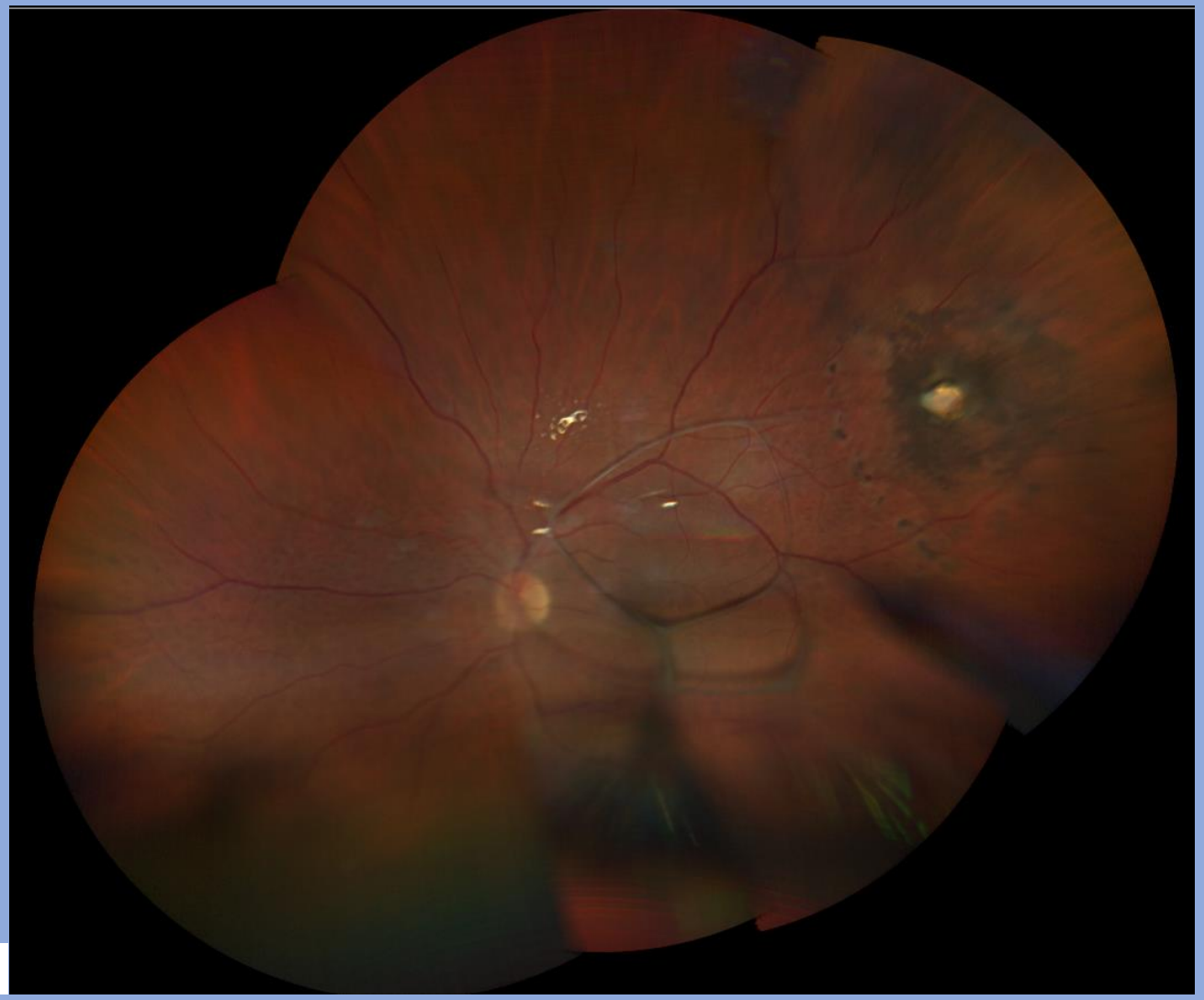

Figure 3