Sieve-like preretinal exudates in *Stenotrophomonas maltophilia* endogenous endophthalmitis

Dinesh Suhan, Raghavendra Rao Kolavali, Anup Kelgaonkar

**DESCRIPTION**

A 26-year-old woman presented with symptoms of sudden diminution of vision in the left eye for 4 days. She also had pain and redness in her left eye. She was a primigravida and had a spontaneous abortion at 8 weeks’ gestation, which was managed by a gynaecologist with intravenous medications and fluids. Two weeks after the management of miscarriage, she developed ocular symptoms.

On examination, the right eye was unremarkable with best-corrected visual acuity (BCVA) 20/20. In the left eye, she had a perception of hand movements close to face with accurate light projection in all quadrants. On examination, she had lid oedema, conjunctival congestion, 3+ cells in the anterior chamber (AC), posterior synechiae, fibrin in the AC and vitreous exudates. Diagnosis of endogenous endophthalmitis (EE) was made; pars plana vitrectomy with vitreous biopsy was performed in the left eye, followed by injection of intravitreal antibiotics (vancomycin and ceftazidime) and dexamethasone. Intraoperatively, vasculitis along with preretinal, like exudates, sparing the posterior pole, was observed. Urine and blood culture showed no growth. Growth of gram-negative bacilli was seen in vitreous culture. Gram-negative bacilli were identified as *Stenotrophomonas maltophilia* by the VITEK-2 system. The organism was observed to be sensitive to amikacin, ciprofloxacin, colistin and gentamycin while being resistant to imipenem, chloramphenicol and cefazidime. Oral ciprofloxacin (750 mg two times per day for 1 week) was prescribed in the postoperative period. Intravitreal amikacin and dexamethasone were injected twice with an interval of 48 hours. In the postoperative period, preretinal exudates in a sieve-like pattern were noted. The exudates resolved gradually (figure 1). At 8-week follow-up, BCVA was 20/30 in the left eye, the AC was quiet and an early epiretinal membrane was noted with a few preretinal exudates in the mid-periphery (figure 2).

Endogenous endophthalmitis, a potential blinding ailment, occurs due to the hematogenous spread of microorganisms. The incidence of EE is lower than postsurgical and post-traumatic endophthalmitis. Predisposing factors include intravenous drug abuse, immunosuppression, the recent history of intravenous drug administration and prolonged intensive care. In Southeast Asia, gram-negative organisms are responsible for most EE cases. *S. maltophilia* (earlier known as *Pseudomonas maltophilia* and *Xanthomonas maltophilia*) is an aerobic, motile, non-fermenting, gram-negative rod. *S. maltophilia* infection can cause bacteraemia,

**Figure 1** (A) Fundus montage image of the left eye 1 week after surgery showing sieve-like preretinal exudates inferiorly and nasally, multiple round preretinal scattered lesions are seen as well. Vitritis causing grade 3 vitreous haze is noted. (B) An enlarged image of (A) demonstrating sieve-like exudates. Gradual resolution of vitreous haze and preretinal exudates were seen during postoperative week 2 (C) and week 4 (D).
infantile dacryocystitis and preseptal cellulitis. It is resistant to many antimicrobial agents and sometimes antimicrobial resistance may emerge during therapy.

Poor prognosis in EE is seen in cases with delayed diagnosis, high virulence of the causative organism, presence of exudates at the posterior pole and poor baseline BCVA. Earlier reports by Chang et al6 and Chhablani et al7 had shown variable recovery in cases of S. maltophilia EE. They demonstrated antibiotic sensitivity to fourth-generation fluoroquinolones and chloramphenicol. Deviating from these reports, the organism in our case was resistant to chloramphenicol and susceptible to amikacin, ciprofloxacin, colistin and gentamycin. Also interestingly, the exudates which were in a sieve-like pattern resolved gradually with treatment. These are possibly inflammatory debris or aggregates. The resolution of these exudates coincided with the resolution of ocular inflammation.

Twitter Anup Kelgaonkar @ak_doc

Contributors DS contributed to manuscript writing and literature review. RRK and AK were responsible for the concept, review of literature, manuscript review and editing.

Funding This study was funded by Hyderabad Eye Research Foundation (LVPEI-bcr-2021-244392-2021).

Competing interests None declared.

Patient consent for publication Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

ORCID iD Anup Kelgaonkar http://orcid.org/0000-0002-3983-4200

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