macular hole leading to a rhegmatogenous retinal detachment, as happened in our case. This was probably due to a defect of the outer retinal layer and to the vitreous traction which was exerted in the macular area by the residual vitreous strands. The retina reattachment was achieved with the application of the macular buckling technique without the use of any kind of energy. This technique, in addition to pneumatic retinopexy, vitrectomy plus fluid/air exchange, and vitrectomy plus silicone oil tamponade, constitutes the techniques currently recommended for the management of retinal detachment caused by macular holes. The fact that no serious macular detachment occurred within the 4½ years after the intervention should be attributed to the maintenance of the macular scleral buckle and to its extension right up to temporal margins of the optic nerve, thus preventing the fluid flow from the optic pit to the submacular space (Fig 3).

This procedure should be an alternative solution for the management of secondary macular elevation caused by the pit of the optic disc.

Aspergillus terreus postoperative endophthalmitis

Figure 1(A) Preoperative photograph. Note white fluffy mass in anterior vitreous.

Figure 1(B) Lactophenol cotton blue mounts of the culture showing hemispherical vesicle covered with biseriate phialides bearing smooth conidia, characteristic of A terreus (×110).

Figure 1(C) Postoperative photograph of the same eye.

50% cefazolin eye drops were instilled every hour alternately. Within 8 hours of presenting to us three port standard vitrectomy was performed and an undiluted vitreous biopsy specimen was sent for microbiological evaluation. The wet mount, Giemsa, and Gram’s stains were negative for bacteria and fungus. Intraocular gentamicin 100 μg with cefazolin 2-2.5 mg and dexamethasone 360 μg were given at the end of surgery. A vitreous sample was cultured for aerobic and anaerobic bacteria and fungus on a number of media: blood agar, chocolate agar, Sabouraud’s dextrose agar, brain heart infusion broth, and thioglycollate broth (supplemented with vitamin K and haemin). After 48 hours’ incubation at 27°C Sabouraud’s dextrose agar grew white fluffy colonies with central cinnamon brown pigmentation. Microscopic examination of the culture confirmed it to be Aspergillus terreus (Fig 1B). The same fungus was grown on several media and no bacteria were grown.

As soon as the microbiology report was obtained 5 μg of amphotericin B was given intravitreally. Oral ketoconazole 200 mg three times a day and topical natamycin every 2 hours were started. Intravenous and topical antibiotics were withdrawn. However, topical steroids were continued. The patient responded well with gradual recovery of a healthy fundal glow. The fundus details were visualised after 2 weeks and systemic ketoconazole was discontinued in view of its potential liver toxicity. When seen on the last follow up 4 months after vitrectomy the best corrected visual acuity was 6/18 and the vitreous was clear (Fig 1C).

Comment

Aspergillus endophthalmitis is a relatively rare condition encountered in clinical practice. Endogenous Aspergillus endophthalmitis is reported in immunocompromised individuals. Exogenous Aspergillus endophthalmitis is reported following cataract surgery, keratoplasty, and eye trauma. Aspergillus flarans, A fumigatus, and A nidulans have been reported to be causative agents of exogenous and endogenous endophthalmitis.

Recently Aspergillus terreus was reported to cause endogenous endophthalmitis in a patient with chronic lymphocytic leukaemia. This was the first report of Aspergillus terreus endophthalmitis. The reason for infrequent reporting could be because Aspergillus terreus is often considered a laboratory contaminant.

The presentation of our patient with ocular pain and reduction in vision 4 weeks after surgery with localised involvement of anterior and mid vitreous was characteristic of fungal endophthalmitis. However, the direct examination of undiluted vitreous specimen was negative. Forty eight hours later the culture was positive and at this time only intravitreal amphotericin B was given. This was supplemented with oral ketoconazole and topical natamycin.

Four months following vitrectomy the patient had useful vision with no recurrence of infection. Because of the changing microbiology pattern of endophthalmitis, any organism cultured from vitreous should not be dismissed either as normal conjunctival flora or a laboratory contaminant.

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