Bilateral vitreous cysts in an 80-year-old man

EDITOR—Vitreous cysts were first described at the end of the last century. They are regarded as ocular curiosities because they are usually asymptomatic and clinical reports are rare. Vitreous cysts can be found in both men and women. There are reports describing unilateral cysts in patients ranging from childhood to young adults. Here we report a case of bilateral vitreous cysts in an 80-year-old patient.

CASE REPORT
An 80-year-old man came to our clinic complaining of seeing floaters in his left eye which moved with eye movements. There was myopia of −3−5 dioptres in the right eye and −4−5 in the left eye. Corrected visual acuity was counting fingers at 2−5 metres in his right eye and 20/40 in his left. Slit-lamp examination showed senile cataract in both eyes. No other relevant alterations in the anterior pole were found. Ophthalmoscopic examination disclosed posterior vitreous detachment and senile macular degeneration in both eyes. There was a vitreous cyst in the right eye of about 3 mm located in the posterior pole. This cyst moved freely but its position was restricted to a circumscribed region. Another vitreous cyst of approximately the same size was found in the left eye, also freely moving in the vitreous. Both cysts were translucent, with some pigment on their walls and were slightly wrinkled (Fig 1). Their surroundings were free of any inflammatory signs. B-scan ultrasonography confirmed the posterior vitreous detachment and demonstrated a well defined anterior and posterior wall in the cyst in the right eye. The walls of the cyst in the left eye were less sharply defined (Fig 2). The patient did not report any history of trauma or visual symptoms that could be related to the cysts.

COMMENT
Although a developmental origin for such cysts has been proposed, their aetiology is still unclear. They may represent remnants of the hyaloid artery, its glial sheets, or the fetal cleft. Vitreous cysts have also been reported as part of an autosomal dominant hereditary vitreoretinopathy and combined with juvenile retinoschisis. A histopathological report suggests that vitreous cysts have their origin in the pigmented ciliary epithelium as a consequence of trauma or inflammatory eye diseases.

To our knowledge this is the first description of bilateral vitreous cysts in an elderly person. Previous reports of such cysts relate to infants, children, or young adult patients. The case we present showed two vitreous cysts, one in each eye, of a very similar appearance. Since the patient had no history of trauma or eye disease other than senile macular degeneration, and since the cysts were present in both eyes, we believe that vitreous cysts are of developmental origin. An interesting observation is that vitreous cysts may be asymptomatic for a long period of time, and probably many of them remain so throughout the patient’s life. This is perhaps the reason why vitreous cysts are very often an incidental finding. In our case both cysts were asymptomatic until the patient reached 80 years of age. Even at this time only the cyst in his left eye produced floaters, while the cyst in the right eye remained asymptomatic. We believe the symptoms appeared because the posterior vitreous detachment produced a displacement of the cyst from its original position. This was not the case in the right eye, where, although a posterior vitreous detachment was present, probably this did not cause sufficient displacement of the cyst to produce floaters.

Surgical removal or laser photocoagulation have been performed on cysts that produced significant visual limitation. In our case no treatment was carried out on the right eye because symptoms were not present. Since we judged that the symptoms caused by the cyst in his left eye were minor, no attempt was made to remove or destroy the cyst. We emphasise that the origin of vitreous cysts may be developmental and that in the absence of visual disturbances they should be left untreated as symptoms and complications are unlikely.

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Bacterial endophthalmitis after anterior chamber paracentesis

EDITOR.—Bacterial endophthalmitis is one of the most serious complications of oculaire surgery. Extended or complicated intraocular surgery is considered to be a risk factor for endophthalmitis.1,2 We report a case of bacterial endophthalmitis following an otherwise uneventful anterior chamber paracentesis.

CASE REPORT
A 62-year-old woman presented to the emergency department with a 2 hour history of sudden loss of vision in her right eye. Visual acuity was limited to hand movements in her right eye. The lids, external eye, and anterior segment were normal with no sign of inflammation. Funduscopy showed a central retinal artery occlusion with a cherry red spot and reduced arterial circulation. Intraocular pressure was 22 mm Hg in both eyes. The left eye was normal. The patient had a history of arterial hypertension.

Massage of the eye did not improve retinal circulation. After application of antibiotic drops (Polyspectran; polymyxin, gramicidin, and neomycin) three times in 5 minutes and disinfection of the lids, an anterior chamber paracentesis was performed with a 29 gauge cannula attached to a 1 ml syringe under topical anaesthesia in the operation room under an operating microscope. Approximately 50 μl of aqueous humour were aspirated. Thereafter the eyeball was soft, and there was no fistula at the puncture site. Retinal circulation, however, remained diminished. The patient received an antibiotic ointment patch (Polyspectran) and oral acetazolamide. After about 6 hours visual acuity and fundus were unchanged; the anterior chamber had 1+ cells. Twenty four hours after surgery the patient complained of increasing pain and redness of the right eye. Slit-lamp examination revealed corneal oedema, a 1 mm hypopyon and fibrin in the anterior chamber. Another diagnostic anterior chamber tap was performed. A Gram stained smear showed Gram positive cocci. Antibiotic treatment with intravenous vancomycin and vancomycin eyedrops was initiated. After a further 12 hour period, the anterior chamber inflammation did not improve and B-scan ultrasonography showed anterior vitreous infiltration. A pars plana vitrectomy with application of intraocular vancomycin was performed. Intraoperatively, purulent material was found infiltrating the anterior vitreous, the anterior chamber, and the zonules. The zonules were partially lysed and the dislocated lens was removed. No retinal infiltration was present. Cultures revealed coagulase negative staphyloccoci sensitive to vancomycin. Systemic antibiotic treatment with intravenous vancomycin was continued. The intraocular inflammation became quiescent, but visual function did not recover.

COMMENT
Anterior chamber paracentesis is a commonly used diagnostic3 and therapeutic4 procedure. In the present case the paracentesis was performed in an operating theatre under sterile conditions with the same precautions as for all other intraocular operations. The intraoperative course was uneventful. This case was the only endophthalmitis in this operating theatre in a year. The source of the inoculum could not be determined. Possible sources are contamination of the needle or the ocular surface. We have found no other cases of bacterial endophthalmitis following an anterior chamber paracentesis in recent literature. However, the presented case is a reminder that even a paracentesis can have serious complications, and should not be considered an essentially harmless procedure. It should only be performed with strict indications.

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