Recurrence intrascleral cyst after strabismus surgery

Abstract • Background: Intrascleral epithelial inclusion cysts have been described after ocular trauma, scleral buckling and strabismus surgery. They are usually small, asymptomatic and located anteriorly. • Case report: The clinical history of a 9-year-old girl who developed a huge episcleral cyst in both the upper and the lower nasal quadrants after multiple strabismus operations is described. • Results: Surgical resection of the cyst wall was unsuccessful. Drainage of the cyst, followed by the injection of tetracycline (30 mg/ml) in the cyst site, led to complete recovery. • Conclusion: Recurrent posteriorly located intrascleral cyst can occur after strabismus surgery. Therapy consisting of drainage combined with intrascleral administration of tetracycline solution (30 mg/ml) to induce sclerodesis appeared to be effective during a 2-year follow-up period.

Introduction

Epithelial inclusion cysts occasionally develop after trauma, strabismus surgery or scleral buckling surgery. After strabismus surgery, they are usually small and have an anterior episcleral location close to, or even in, an operated muscle [3, 6, 9]. After scleral buckling surgery they can some-times develop in the posterior part of the orbit, and can cause problems due to increasing size [4]. Reports of intrascleral implantation cysts are few in number and suggest a traumatic aetiology [1, 8].

The case we describe here is the first reported recurrent symptomatic extensive intrascleral cyst after strabismus surgery. We suggest a new treatment.

Case report

A 9-year-old girl was referred to our department because of a painless decrease in visual acuity (VA) in her right eye over a 3-week period. She had a history of repeated strabismus surgery, performed elsewhere 3, 7 and 8 years previously. The superior, medial and lateral rectus muscles had been recessed and the inferi-
Fig. 1 Appearance of the fundus, showing a large indentation of the superior quadrants of the globe.

Fig. 2 Ultrasonography of the right eye. Top and bottom left: B-mode scans obtained with the transducer on the globe, showing a round hypoechoic lesion. Top and bottom right: Immersion B-mode scans showing the strong indentation and the location around the optic nerve. (VC vitreous cavity, O orbital fat, C cyst, ON optic nerve.)

Fig. 3 Appearance of the fundus aspect 1 day after the first operation, showing papilloedema and haemorrhages on the disc and the retina.
Recurrence of the cyst was ultrasonographically confirmed. An even more radical excision of the cyst wall was performed. Four months after this operation, however, the cyst reappeared for the third time. We decided on another approach.

After drainage of the cyst, 0.4 ml of a concentrated tetracycline solution (30 mg/ml) was injected between the cyst walls to induce sclerodesis. No further surgery was performed. Four months after this procedure, the VA was restored to normal. Two years later there were no signs of recurrence of the cyst, either clinically or ultrasonographically.

**References**