LETTERS TO THE EDITOR

Ultrasound biomicroscopic imaging of a surgically reattached cyclodialysis cleft

EDITOR,—Traumatic cyclodialysis is a severe complication of ocular contusions. Hypotension caused by this detachment of the ciliary body (not a phacoemulsification because of the phacoemulsification). A capsular rhexis was performed and an intraocular lens was placed in the capsular bag. A silicone tube with a diameter of 0.6 mm was sutured to the ciliary sulcus with loose stitches of 10/0 nylon to prevent the outflow of the aqueous humour (Fig. 1A and B). At the third postoperative day the IOP rose to 7-5 mm Hg. The visual acuity improved up to 20/400. The macular oedema in response to the ocular hypotony decreased significantly, but the glial component of the macular pucker did not improve. During a 1 year follow up the IOP fluctuated between 7 and 9 mm Hg. On gonioscopy, the silicone tube was observed through the iridodialysis, and the cyclodialysis cleft seemed to be closed (Fig 2).

Recently, we analysed the eye using ultrasound biomicroscopy (UBM 840 – Humphrey Instruments) to confirm the postoperative results (Fig 3). The silicone tube was clearly seen at the ciliary sulcus closing the cleft and, like the intraocular lens, it induced an echogenic artefact.

COMMENT

The main cause of hypotension after cyclodialysis is severe outflow of the aqueous humour from the eye. It escapes through the cleft formed between the sclera and the ciliary body, and is massively reabsorbed by the suprachoroidal space. Another important factor is decreased production of aqueous humour owing to diminished blood supply to the ciliary body. Medical treatment is ineffective in most cases. Reattachment of the ciliary body by suturing it back onto the sclera has been the treatment of choice, but it may cause severe intraocular bleeding, or the operation may fail if a small part is left unsutured.

We used a technique with lesser risk of intraocular haemorrhage because it does not require full thickness scleral openings and does not suture the ciliary body directly. Using a sutured silicone tube the cleft is completely and uniformly closed. Thus, this new technique is a simple method that prevents the aqueous humour from escaping through the cleft into the suprachoroidal space. The fact that there was no pressure peak upon closure of the cleft could suggest that the closure was primarily not complete, or that the ciliary body was partially detached and the production of aqueous humour was markedly decreased. Unfortunately, we acquired the ultrasound biomicroscope 1 year after the surgery. By that time, no residual cleft was identified.

More cases should be treated to confirm the effectiveness of this procedure. The ultrasound biomicroscope is a very useful diagnostic tool in evaluating ciliary body damage after a blunt ocular trauma and in assessing postoperative results.

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