Retina to retina adhesions following suprachoroidal haemorrhage

EDITORS—Retina to retina adhesions occur as a rare complication of suprachoroidal haemorrhage. Previous reports indicate a poor prognosis. We observed a patient who developed suprachoroidal haemorrhage and retina to retina adhesions following a glaucoma shunt procedure. Modern vitreoretinal surgical techniques were used to lyse the adhesions.

CASE REPORT

An 80-year-old woman with a history of aphakia and recent penetrating keratoplasty developed glaucoma requiring the placement of a Krupin valve with disc. Three days later the patient noted a severe, sharp pain in her right eye.

Visual acuity was light perception. The intraocular pressure was 14 mm Hg. The corneal graft had 2+ deep striae. The anterior chamber was deep with a small hyphaema present. The tube shunt was properly positioned in a deep anterior chamber. A strand of vitreous was incarcerated within the proximal tube. Large, dark, “kissing” choroidal detachments were present. Ultrasound examination showed massive suprachoroidal haemorrhage.

Three days later, the choroidals were somewhat smaller, with the nasal and temporal components slightly separated. Two regions of the nasal and temporal retina remained adherent to one another, with resulting traction retinal detachments (Fig 1).

It was feared that further spontaneous recession of the choroidals would cause tearing of the retina. A surgical procedure was performed using techniques similar to those described for retinal adhesions to anterior segment structures.1 Saline was infused via a 20 gauge anterior chamber maintainer in the inferotemporal limbus. Very low infusion pressure was used to avoid forceful separation of the choroidal detachments. Two additional limbal 20 gauge incisions were created. Using microscope illumination and a vitrectomy probe, vitreous was removed from the anterior segment and tube shunt. Using endolumination, the vitrectomy was extended posteriorly until the retinal adhesions were reached.

The retina to retina adhesions were gently separated with a spatula-shaped retinal pick. The suprachoroidal haemorrhage was drained via two equatorial, radial sclerotomies. The vitrectomy was continued through the limbal approach, removing as much vitreous as safely possible. No tears or persistent traction were found. To avoid postoperative hypotony, the shunt tube was ligated with a 5-0 polyglactin suture.

The patient has been followed for 9 months. Vision recovered to 20/100. The intraocular pressure has been adequately controlled. The retina has remained attached.

COMMENT

Large suprachoroidal haemorrhages may bring the retina into contact with other retinal surfaces, ciliary body, anterior segment structures, or surgical wounds. If firm adhesions form, traction retinal detachment, retinal tears, and rhegmatogenous retinal detachment are likely to occur as the choroidals recede.

We found two references describing retina to retina adhesions complicating suprachoroidal haemorrhage. Berrocal described three cases due to appositional choroidal detachments following scleral buckling surgery.2 Two of the cases were haemorrhagic choroidals. In one eye the condition was successfully treated by draining the choroidals, and reforming the globe with saline and air. The others were judged to be inoperable. Lakhanpal described one case each of ‘interretinal’ and ‘intraretinal’ adhesions, neither of which could be separated surgically.3

Retina to retina adhesions may occur more frequently than the literature suggests. Media opacities associated with suprachoroidal haemorrhage may preclude recognition of adhesions. Rhegmatogenous detachment may supervene, without recognition of preceding adhesions. Some may lyse spontaneously, without sequelae. We intervened because we felt the risk of rhegmatogenous retinal detachment was high, and the prognosis for repair of such a detachment would be poor.

We believe this is the first case of retina to retina adhesions documented photographically, and the first description of successful management using vitreoretinal surgical techniques.

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Solitary astrocytoma of the retina in a child

EDITOR—Astrocytic proliferations in the eye are rare lesions usually associated with tuberculosis or neurofibromatosis. Solitary astrocytomas occurring outside this association are exceptional, fewer than 20 cases having been reported. We present an additional case which occurred in a unique anatomical location and discuss the clinical features and treatment of this rare condition.

CASE REPORT

A 3-year-old girl presented with a 6 week history of left divergent squint and an abnormal left retinal reflex. Indirect ophthalmoscopy revealed a large inferior retinal mass and a 360° retinal detachment. A presumptive diagnosis of retinoblastoma was made. There was no significant medical or family history and developmental milestones were normal. She was admitted for examination under anaesthesia. Ultrasound, lambar puncture, bone marrow aspiration, and bone scan were also performed. The presence of a retinal mass was confirmed and the affected eye was enucleated. The patient made a good recovery and a prosthesis was fitted. Examination of the right eye showed two small areas of anomalous retinal pigment epithelium change.

In view of the histological findings discussed below, the patient underwent further examination for signs of tuberous sclerosis and neurofibromatosis. Chromosomal analysis, computed tomography scan of the brain, and dermatological examination including Wood’s light were all normal. After 4 years of follow up the appearances of the right retina were unchanged and there were no signs of systemic disease.

The surgical specimen was a 20 mm diameter globe with 11 mm of attached optic nerve. A white reflex was visible through the normal cornea; the iris and pupil were symmetrical. After fixation, sectioning of the globe showed complete retinal detachment. The intervening space contained opaque fluid. A firm, grey, spherical tumour was present. It arose at the junction of the iris and retina and pressed on the lens posteriorly (Fig 1). No other tumour nodules or other macroscopic abnormalities were present.

Histological examination showed that the tumour arose at the junction of the nervous and non-nervous parts of the lens. It was composed of spindle-shaped cells with moderate nuclear pleomorphism and abundant, fibrillary, eosinophil cytoplasm. The cells were arranged in storiform pattern and also formed ill defined palisades, some around blood vessels (Fig 2). Several areas of microcystic degeneration were present (Fig 1).

Figure 1 One of two areas of retina to retina adhesion, with traction retinal detachments (small arrows), bridging large nasal and temporal choroidal elevations (large arrows).

Figure 2 A low power view of the sectioned eye showing the solitary tumour pressing on and deforming the posterior surface of the lens. Tumour diameter 7 mm.