RETINAL DETACHMENT AND GLAUCOMA*

BY

KRISHNA SWAMI MEHRA AND MAHARAJ KISHORE GUPTA

Ghandi Eye Hospital, Aligarh, India

TRAUMATIC retinal detachment may or may not be associated with hypotony. In some cases iridocyclitis precedes the detachment, which is then termed secondary (Duke-Elder, 1940), and in these circumstances there is frequently a marked hypotension. Rarely, however, the reverse may occur and a detachment may be associated with a secondary iridocyclitis giving rise to secondary glaucoma. This is thought to be due to the liberation of irritant substances from the retina. Even more rarely the development of a secondary rise in ocular tension may cause a reduction in the extent and depth of the retinal detachment. Sédan (1928) reported a case of this type. Vogt (1936) described two such cases, in the first of which hypotony with retinal detachment alternated every few weeks with hypertension and re-attachment of the retina. The second case was one of cataract with secondary glaucoma; 5 days after the cataract extraction there developed a retinal detachment associated with hypotension, and 6 months later the ocular tension rose again and the retina became re-attached.

The present history is that of a case in which detachment associated with hypotony alternated with re-attachment of the retina and hypertension.

Case Report

A young boy had sustained an injury to the left eye 8 months previously when he was struck by a pointed wooden toy. The eye was red for 4 days at that time, but 2 weeks later the child began to complain of defective vision. The eye became painful and thereafter was subject to attacks of pain recurring every 2 weeks. Hydrocortisone ointment had no effect.

Examination.—The right eye was normal.

Visual acuity in the left eye was perception of light with poor projection. The cornea, iris, and pupil were normal but biomicroscopy revealed a heavy flare, pigment deposition on the posterior surface of the lens, and vitreous opacities. There were no keratic precipitates. The tension was "very soft". Fundus examination revealed a total retinal detachment deeper below than above. No retinal perforation could be seen.

Other systems were found to be normal. The urine and white cell count (total and differential) were normal, and the Wassermann reaction and Kahn test were negative.

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Treatment.—Atropine and hydrocortisone ointment were given topically and millimetol orally.

Course.—After 4 days the ocular tension began to rise and the detachment to subside. On the 5th day applanation tonometry revealed a tension of 32 mm. Hg (Schiötz) and the retina was found to have become completely re-attached. The biomicroscopic findings were unchanged. At this stage the patient complained of pain in the eye, and Diamox 125 mg. twice daily was prescribed, and this relieved the pain.

On the 8th day the tension began to fall again and the detachment re-appeared above, and on the 9th day the eye was "very soft" and there was extensive detachment. Diamox was then discontinued.

On the 13th day the patient complained of pain in the eye again and the tension was found to have risen with an associated flattening of the retina. The next day the tension was 32 mm. Hg, the detachment had disappeared, and the visual acuity had improved to "counting fingers" at 0.5 metre. This time Diamox was not given so that it could be observed how long the hypertension remained, but on the 19th day the tension again began to fall and the retina again began to detach itself.

Summary

A case is presented of a child in whom a retinal detachment associated with hypotony alternated with periods of re-attachment of the retina and hypertension.

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