The Visual Prognosis in Still's Disease with Eye Involvement

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IN the last ten years in the Research Unit for Juvenile Rheumatism at the Canadian Red Cross Memorial Hospital, Taplow, I have examined the eyes of 220 children under the age of 16 with Still's disease. Of this number 12 or 5·5% were found to show evidence of anterior uveitis (5 males, 7 females). They have been followed up for periods varying from two and a half to ten years. This incidence of eye complications is much less than that found in Denmark; Godtfredson (1949) quotes 20% and Vesterdal and Sury (1950) 21%.

The prognosis for vision in my series is not good. Of 12, 8 children had both eyes involved and 4 one eye involved—20 eyes in all. Table I shows their visual acuity at the present time: 50% of the eyes have vision of 6/18 or worse, and

TABLE I.—VISUAL ACUITY IN STILL'S DISEASE OF 20 AFFECTED EYES

No. of eyes	Visual acuity	On or off treatment
4	6/9 or better	Off
4	6/9 or better	On
2	6/12	On
2	6/18	On
2	6/36	On
1	6/60	Off
1	Hand movements	Off
1	Perception of light	Off
3	No perception of light	Off

of these half are certifiably blind. Moreover many of the eyes with better vision are still on treatment and it seems likely that the sight of some of these will deteriorate if the causative inflammation persists.

There is no doubt that the longer the anterior uveitis continues, particularly if uncontrolled by local cortisone or small doses of systemic steroids (5–7·5 mg prednisolone daily), the worse the visual prognosis. It should be remembered that the anterior uveitis in this condition persists not for days or weeks but commonly for months or years, even when treated, and tends to recur.

The development of a corneal band opacity is also a bad prognostic sign particularly if it continues to spread despite treatment of the uveitis. 10 out of 12 eyes with vision of 6/12 or less have all had diffuse band opacities. Of 8 eyes with vision of 6/9 or better only one shows a juxtalimbal opacity and this has not spread in several years. Every eye with a diffuse band keratopathy has later developed a complicated cataract. A band opacity which involves the pupil should be removed and this can readily be achieved by chelation of its calcium salts with sodium Versenate after curettage of the corneal epithelium (Grant, 1952; Smiley *et al.*, 1957).

A complicated cataract is much more of a menace to the sight and much less easily removed. Of the 20 eyes in this series 8 have developed mature cataracts and 4 show less advanced lens opacities. In more human terms these 8 mature cataracts occurred in 4 children all of whom have been, or are still, on the Blind Register.

I have operated on 5 eyes of these 4 children and am still in doubt about the best method of tackling the cataract. I needled both eyes of my first patient and also chelated the corneæ. He obtained 6/36 vision in one eye and 6/12 in the other and was able to come off the Blind Register.

Treatment of my second patient was a failure. The needled eye began slowly to degenerate and became shrunken. The only consolation was that his other eye followed the same course some months later without any surgical interference.

The third child came to me after a needling operation elsewhere had also resulted in a blind shrunken eye. The other eye had a cataract and a band opacity. I chelated the corneal band and determined to try and remove the cataract by zonulolysis. A preliminary iridectomy was first performed to see how the eye reacted to operation. Intracapsular extraction was later attempted but defeated by firm adhesions between posterior lens capsule and vitreous face. The capsule ruptured and a curette evacuation had to be carried out. The result was disappointing because the pupil became obliterated by scar tissue which reformed to some extent after each of two subsequent pupillotomies. He now has perception of hand movements but can see to cross a room and negotiate the larger obstacles. He is of course irrevocably on the Blind Register.

My last patient was operated on two months ago, the cornea being chelated and the lens removed intracapsularly at one operation. Again adhesions were encountered between vitreous and lens capsule and in the process of separating these a little vitreous was lost. The eye has settled down well, however, and the final vision should be quite good—enough I hope to remove her name from the Blind Register.

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The following paper was also read:

Sickle Cell Hæmoglobin-C Disease.—Dr. S. S. F. MUNRO. *See Brit. J. Ophthal.* (1960) **44**, 1.