

SECONDARY AND CONSECUTIVE EXOTROPIA

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Abstract

A review of 81 patients with secondary exotropia and 80 patients with consecutive exotropia is presented, and the main characteristics of each type are discussed.

Key words

Secondary exotropia, consecutive exotropia.

The purpose of this paper is to review briefly some of the characteristics of secondary and consecutive exotropia. The records used were those of 721 patients who had undergone surgery for a divergent deviation at the Sydney Eye Hospital.

Secondary Exotropia

81 patients were diagnosed as having a secondary exotropia. Secondary exotropia is said to occur because pathological conditions give rise to gross visual loss¹. However, for 21 patients the visual acuity was 6/36 or better in the affected eye. It appeared that in these cases the interruption to binocular vision (e.g. by a penetrating injury) had precipitated the deviation.

The remaining patients had visual acuity of 6/60 or worse. Some of these patients had grossly defective vision in both eyes.

33 of the 81 patients with secondary exotropia had undergone previous non-strabismic surgery. It can be seen from the types of surgery performed that an interruption to binocular function and a gross decrease in visual acuity may have occurred.

39 patients suffered from organic lesions causing a 'blind' eye.

Only 23 patients wore glasses, and investigation of the refractive errors proved insignificant. The 7 patients with unilateral aphakia were not optically corrected. Other than for these patients, anisometropia was not evident. This, has however, been described as a factor in secondary exotropia.¹

TABLE 1
PREVIOUS SURGERY

No previous surgery	39
Previous surgery for exotropia	9
Cataract Surgery -- Unilateral	7
-- Bilateral	6
Retinal Detachment	9
Corneal Graft	6
Penetrating Injury	2
Other	3

Hugonnier² states that secondary exotropia usually involves a large angle, that is, between 40 Δ and 60 Δ . The patients in this survey were assessed largely by Hirschberg's method only. It can be seen from Figure 2 that the majority of patients in this survey who had surgery for a secondary exotropia had an angle of at least 40 Δ , with 9 being greater than 60 Δ .

TABLE 2
ANGLE OF DEVIATION

Less than 40 prism dioptres	21
40 to 60 prism dioptres	31
Greater than 60 prism dioptres	9

Consecutive Exotropia

Consecutive exotropia occurs where, through the passage of time or following enthusiastic surgery, a previously convergent eye diverges. This paper analyses only those with post operative consecutive exotropia. It is amazing to think that during 41 years of surgery and the several thousand cases of esotropia operated on in that

time, only 82 patients were found to require surgery for this condition.

The majority of patients had undergone 1 operation for esotropia. 9 patients had already undergone surgery for consecutive exotropia.

TABLE 3
PREVIOUS SURGERY FOR ESOTROPIA

	Number of operations
One	44
Two	16
Three	8
Four	3

88% of those with consecutive exotropia showed no evidence of binocular function. Vallaseca, as reported by Hugonnier², suggests pseudoparalysis of the medial rectus due to adhesions as a feature of consecutive exotropia. 42% of the patients in this series showed underaction of

one or both medial recti before exotropia surgery. Perhaps this occurs due to inadequate ocular motility exercises following the initial operation. Over recent years this appears less of a feature. This may be due to the fact that orthoptists now encourage these movements post operatively.

Only 32% of these patients had equal visual acuity pre-operatively. 25% showed 1 line difference, the remaining 43% with more than one line difference.

REFERENCES

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