DUANE'S RETRACTION SYNDROME*†

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DUANE'S retraction syndrome (Duane, 1905) is frequently but not invariably associated with convergent strabismus when the eyes are in the primary position (Duke-Elder, 1964); if a head-turn is present, it will be in the direction of action of the paretic lateral rectus muscle. In the atypical retraction syndrome, the medial rectus is more paretic than the lateral rectus muscle; there is exophoria in the primary position and the head-turn will be in the direction of the paretic medial rectus muscle (Brown, 1958). It is unusual to find exophoria or exotropia with head-turning in the direction of action of the less paretic rectus muscle in atypical Duane's syndrome. Saiduzzafar (1959) and Keith (1961) each reported one case affecting the left eye with head-turning to the right. A similar case of Duane's syndrome affecting the left eye with exotropia and head-turning to the right is described here.

Case Report

A 35-year-old Hindu male reported to the ophthalmic Out-patients Department in July, 1963, complaining of restricted movement of the left eye. The condition had been present from birth. There was no relevant family history.

Examination.—Visual acuity was 6/6 (Snellen's chart) in both eyes. There was exotropia in the primary position which became less evident with the head turned to the right (Figs 1 and 2).

FIG. 1.—Head-turning to the right with slight left exotropia.

FIG. 2.—Primary position with increased exotropia.

Ocular Movements

DEXTROVERSION showed slight up-drift and limitation of abduction with narrowing of the left palpebral fissure and left enophthalmos (Fig. 3).

LAEVO-VERSION showed limitation of the left eye to a few degrees beyond the mid-line, slight hyper-tropia, and widening of the left palpebral fissure (Fig. 4).

DEXTRO-ELEVATION showed marked up-drift of the left eye (Fig. 5).

LAEVO-ELEVATION showed marked up-drift of the left eye (Fig. 6).

CONVERGENCE.—The right eye showed convergence but the left remained the fixing eye in the primary position (Fig. 7).

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FIG. 3.—Dextroversion.

FIG. 4.—Laevo-version.

FIG. 5.—Dextro-elevation.

FIG. 6.—Laevo-elevation.

FIG. 7.—Convergence.

Cover Test.—In the primary position there was moderate left divergence which increased on dextroversion and laevo-version. With head-turning to the right there was a moderate latent divergence of the right eye with good recovery.

Hess Screen Test.—This showed paresis of the left medial rectus muscle and over-action of the right lateral rectus muscle.

Comment.—The unusual feature of this case is that although the most obvious deficiency of movement was left abduction, the head-turning was to the right and exotropia was present in the primary position. Abduction was only slightly limited, but there was gross overaction of the right lateral rectus muscle.

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