The tragic features in this case were the misleading biopsy at the primary operation and the prolonged refusal on the part of the parents to permit reexploration. If this could have been carried out within the first 6 years, before the onset of hemiparesis and convulsions, the patient might have made a satisfactory recovery with only a moderate reduction in visual acuity and a right homonymous hemianopsia.

SUMMARY

A meningioma of over 10 years' growth is reported with a record weight of 1853 grams.

Removal of the 520-gram extracranial herniation and secondary resection of the 833-gram intracranial mass from the parieto-occipital portion of the brain were accomplished successfully, but too late to prevent deterioration from cerebral atrophy and convulsive seizures. The boy died 6 months later of progressive hydrocephalus. An unusual subdural hygroma, which filled the postoperative cavity and compressed the Sylvian aqueduct, communicated with the ventricles.

REFERENCES


DUANE'S RETRACTION SYNDROME

A CASE REPORT*

John W. Chambers, M.D.
Veterans Administration Hospital, Perry Point, Maryland

(Received for publication February 16, 1950)

This case exemplifies a particular congenital anomaly involving extraocular movements and is reported because of the great confusion in diagnosis which could have been avoided by careful observation, despite the misleading history. Errors in diagnosis of ocular anomalies are frequent as a result of failure to realize that congenital anomalies of the eyes are not uncommon and are often unnoticed by the individual patient—i.e. congenital Horner's syndrome, hyaline bodies of the nerve (Drusen) suggesting choked disks, tilting of the optic disks with bitemporal field defects suggesting a chiasmal lesion, pseudopapilloedema, pseudoneuritis and so forth.

REPORT OF CASE

W.E.S. (P.P.V.H. #20784), a white male aged 19 years, first complained in the fall of 1947, while in the army, of double vision on looking to the left and of inability to move either

* Sponsored by the Veterans Administration and published with the approval of the Chief Medical Director. The statements and conclusions published by the author are the result of his own study and do not necessarily reflect the opinion of the Veterans Administration.
DUANE'S RETRACTION SYNDROME

461

eye past the midline, laterally. One day while shaving he noted that he was unable to see the right side of his face on looking in the mirror and was unable to look to the right. He had never noted any trouble prior to this time and had encountered no difficulty in his physical examination on induction into the army. In February and March 1948 he had episodes of severe headache of varying location, duration and intensity, associated on several occasions with amaurosis lasting about 20 minutes. His description of his headaches was quite typical of migraine. He was also bothered by nervousness and restlessness, and was hospitalized as a result of these complaints, rather than the eye difficulties. His mother and aunt said that he had never been able to move his eyes to either side since birth.

Physical examination was negative except as regards the eyes. X-rays of skull showed no abnormality. CSF, blood and urine were normal.

Ophthalmological Consultation. "Paralysis of left eye on looking to left, on looking down and to left; paralysis of both right and left eyes on looking to right; paralysis of right eye on looking down and to right. Red lens diplopia test at 1 m. shows diplopia in primary position and in all cardinal directions of gaze.

"Diagnosis: Ophthalmoplegia, externa, O.U. with paralysis of rectus lat. O.D., rectus inf. O.D., rectus lat. O.S., rectus inf. O.S., rectus med. O.S.

"Findings suggest a lesion involving tissues in area of cavernous sinus, bilateral. The possibility of a basilar arachnoiditis on a lumbar basis should be considered."

Neurological Consultation. "Vision unimpaired. Pupils normal. Eye-grounds show no lesions. No movement in either horizontal direction of left eye although upward and downward movement is practically normal. The right eye moves outward but not inward. Convergence is abolished. Diplopia is present as well as strabismus.

"Impression: History of headache, temporary blindness, diplopia, and lack of movement of eyes indicate an intramedullary lesion, although they could be due to basilar meningitis. ? Encephalitis ? tumor in aqueductal region. Air studies should be considered."

Other diagnoses included bizarre neoplasm and multiple sclerosis. After much difference of opinion patient was discharged from the army with a diagnosis of schizophrenic reaction and bilateral abducens paralysis, probably due to birth injury.

Admission to Perry Point Veterans Hospital, Mar. 19, 1949, for follow-up examination. Physical findings were normal except as regards the eyes. On lumbar puncture normal dynamics and pressures were noted. CSF was normal.


Impression: Nuclear lesion, because bilateral, with only partial involvement of 3rd nerve, with normal pupillary reaction.

Medical Consultation. ? Myasthenia gravis; 0.5 mg. prostigmine was given without benefit.

Patient was then referred to neurosurgery.

Examination. There was inability to abduct either eye (Figs. 1, 2 and 3). On the left, adduction was poorly performed with marked narrowing of the lid slit and retraction of the globe when adduction was attempted. Adduction was slightly limited on the right with slight narrowing of the lid slit and barely noticeable retraction of the globe.

Impression: Bilateral retraction syndrome (Duane's syndrome).

Comment. This condition occurs more often in females, with the left eye more frequently affected than the right. It may be familial. On pathological examination there is more or less complete absence of muscular tissue with many inelastic fibrous bands. Most observers feel that injury does not play a role. The syndrome is not associated with any abnormality of the central nervous system. There is limitation of abduction, usually complete. Sometimes there is fuller movement in the upper and lower fields as result of abducting power of the oblique muscles. Retraction of the globe occurs on attempted abduction (1-10 mm.) and narrowing of the palpebral