PERISCOPE

THE CORPUS CALLOSUM AND ITS TUMOURS.

Tumours of the corpus callosum have rarely been diagnosed during life, although they have been known for nearly 300 years. Felix Plater in 1614 reported a case which would appear to have been a hæmangioma of the falx, involving the corpus callosum, and in 1675 Wepfer, the Professor of Medicine at Tülinger, records a case which gives a picture of the clinical condition hardly equalled by any modern writer. This proved to be a cystic degenerating tumour of the posterior part of the corpus callosum extending into the right lateral ventricle and right internal capsule. Up to the present no writer has contributed more than four individual cases. Fourteen additional cases are recorded in this paper. They were carefully selected as being neoplasms originating in, and largely confined to, the corpus callosum. Frontal tumours and occipital tumours extending into the corpus callosum have been excluded. The symptoms in corpus callosum tumours are largely of the "neighbourhood" type, and arise from involvement of, or pressure on, adjacent structures by the growth. The study of neoplasms of the corpus callosum have thrown no light on the physiology of that structure. The groups of symptoms which define with greatest clearness the clinical picture of tumour of the corpus callosum are as follows:—

- (1) Hemiplegic weakness with pyramidal signs on the opposite side is frequent and early. Whereas great stress has been laid on apraxia as a physical sign, it is not a prominent feature, and probably does not occur in more than 10 per cent. of cases.
- (2) The mental symptoms which are so commonly present are often the first symptom. Apathy, drowsiness and defect of memory are met with more commonly than in growths elsewhere, and occur with such regularity in the corpus callosum syndrome as to be characteristic.
- (3) Epileptiform convulsions are relatively frequent, and attention may be drawn to the presence of other involuntary movements, tremor and choreiform movements.
- (4) The occurrence of yellow cerebrospinal fluid in four of the above cases was regarded as of considerable importance. It was only examined in seven of the cases.
- (5) In the main the general symptoms of cerebral tumour has been in abeyance, so that the diagnosis arrived at during life, in most of the cases here recorded, was cerebral vascular disease.

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Gower's statement that "the symptoms (with the possible exception of mental dullness) are due to pressure on to, or extention into, the cerebral hemispheres" thus still holds good. The early physical changes are undoubtedly due to interruption of the association fibres in the corpus callosum. Papillœdema was found in 9 of the 14 cases here described.

Glioma is by far the commonest growth of the corpus callosum, although sarcoma and gliosarcoma may occur. All other growths are relatively rare, but myxosarcoma, carcinoma and lipoma have been met with as primary growths. They appear to be more common in men than in women (3 to 1), and most frequently between the ages of 30 and 40 years.

R. IRONSIDE and M. GUTTMACHER (*Brain*, 1929,
lii., 442 to 483).

TUMOURS OF THE PINEAL, CORPORA QUADRIGEMINA AND THIRD VENTRICLE: THE INTER-RELATIONSHIP OF THEIR SYNDROMES AND THEIR SURGICAL TREAT- MENT.

Tumours involving the mid-central region of the brain may be considered as among the less frequently occurring brain tumours. In the majority of cases the diagnosis was previously only made post-mortem, but recent research has rather tended to show that in most cases the clinical pictures may be similar. Twelve cases are described in the present paper. Experimental studies of the pineal gland have given rise to many contradictory opinions, and have failed so far to discover definitely its function. The symptoms of tumours of the pineal body may be divided into two groups, those of neurological origin and those of endocrine disturbance. The symptoms of neurological origin are mostly due to the fact that the same anatomical structures may be involved in each case. No clinical evidence of the function of the pineal body or corpora quadrigemina is provided by these cases. The neurological symptoms resulting from pressure on, or destruction of, adjacent anatomical areas may be divided into six groups, namely:—(1) ocular, (2) cerebellar, (3) sensory, (4) motor, (5) other cranial nerves, and (6) the signs of increased intracranial pressure. Involvement of the ocular apparatus causes the most outstanding diagnostic sign. This may consist of a loss of associated upward movement of both eyeballs, a failure of conjugate movement downward, rhythmic convergent spasm, as well as unequal immobile and widely dilated pupils, sluggish pupillary reaction to light, Argyll Robertson sign, paralysis of convergence, unilateral or bilateral sixth nerve paralysis, unilateral ptosis and diplopia. Other cranial nerves liable to be involved are the eighth, with unilateral or bilateral deafness