A CASE OF PAPILLOMA OF THE CHOROID PLEXUS

BY

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The following case appears to be worthy of publication owing to the unusual nature of the tumour. According to Cushing[1] the incidence of papilloma of the choroid plexus is not more than 0·5 per cent. of all cerebral tumours.

I am indebted to Dr. J. F. Ward for permission to make use of the clinical records of the following case which was under his care in the Royal Manchester Children's Hospital.

Case report.

A girl of 7 years was admitted to the Royal Manchester Children's Hospital under Dr. Ward's care on March 12th, 1932. The history was as follows. The child had recovered from measles 3 weeks previously, since when she had taken little interest in anybody. For a fortnight she had complained of headache and of cramp-like pain in the arms and legs, and for the same period nearly all food had been vomited. For 1 week control of the bladder and rectum had been lost.

Examination of the heart, lungs and abdomen did not reveal any abnormality. Examination of the nervous system revealed a rational but very slow cerebration. There were no paralyses and the superficial and deep reflexes were normal in response. The pupils were dilated but were equal in size and reacted to light and accommodation. There was slight nuchal rigidity, and Kernig reactions were obtained on both sides. There were no sensory changes.

Lumbar puncture was performed 3 times, but on no occasion did the cerebro-spinal fluid show any departure from normal.

The girl remained in hospital in a semi-comatose condition with frequent vomiting, and just before death on May 26th, 1932, she developed a bilateral optic atrophy.

A diagnosis of cerebral tumour was made but localization was impossible.

Post-mortem examination.—At autopsy the body was very emaciated. All the organs of the chest and abdomen, though nearly devoid of fatty tissue, were normal.

On opening the skull the meninges were found to be normal. The brain was removed and a rounded well-circumscribed tumour, 6·5 cm. in diameter, was found situated below the posterior two-thirds of the left cerebral hemisphere (Fig.1). There was also a tongue-like process of growth 1·5 cm. in length by 0.75 cm. in breadth, which passed through to the external surface of the hemisphere. The growth was somewhat lobulated on the surface and was seen to be of a deep reddish-brown colour.

On microscopical section it proved to be a typical papilloma with numerous cauliflower-like villi containing a central core of connective tissue covered with a single layer of cuboidal cells (Fig. 2).

The growth had evidently arisen from the choroid plexus of the third ventricle.

Discussion.

Incidence of cerebral tumours in general and of the choroid plexus papilloma in particular.—In discussing the incidence of cerebral tumours in

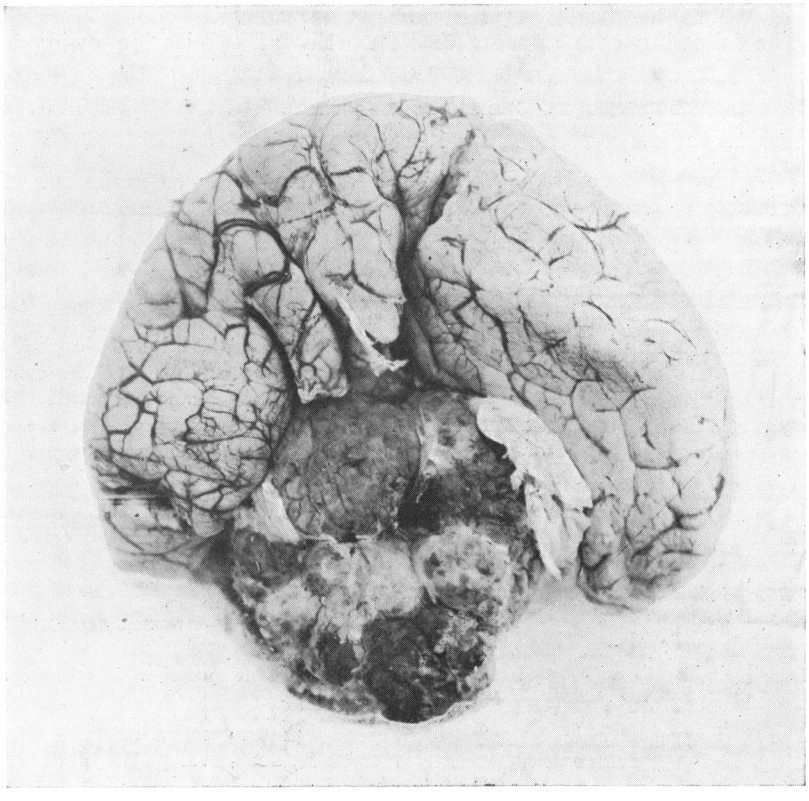

FIG. 1.—View of brain.

childhood, Leavitt[2] found 23 cases among 350 records of tumours in the Philadelphia Hospitals, but not a single case of papilloma of the choroid plexus was reported. These figures give a lower incidence than those of Cushing[3] who reported 154 from records of 1,108 cases; of these 154, 44 only were cerebral, 110 cerebellar. These figures give some idea of the comparative rarity of cerebral tumours in childhood.

von Wagenen[4] collected 45 cases of choroid plexus papilloma from the literature and reported 2 of his own. Of these, 6 were observed by Cushing[1]. I have been able to trace another 7 which with the above case makes a total of 55 reported cases, 6 of which were reported by Cushing[1] and 1 by Guillain and others[5].

Age incidence.—In the first decade of life there are 13 cases, in the second 6, and in the third and succeeding decades, 22. The age of 14 patients was not recorded. The youngest age was 3 months and the oldest 74 years.

Sex incidence.—The sex was so rarely mentioned that it is not possible to draw any conclusions as to the sex incidence.

FIG. 2.—Section of tumour.

Site of the tumour.—The site of these tumours is interesting. 16 occurred in the lateral ventricle, of which 11 were on the left side, and one occupied both ventricles. 10 occurred in the third ventricle, but the greater number (29) were found in the fourth ventricle.

Signs and symptoms.—Apart from the classical signs and symptoms of cerebral tumour (headache, vomiting and papillœdema) there seem to be but few aids to the diagnosis of choroid papillomata, although it is noticeable that some have been confused with acoustic tumours owing to the presence of deafness, nystagmus and disorders of equilibrium. Guillain[5] reports one such case and Cushing[1] mentions three others.

Conclusion.

In conclusion papillomata of the choroid plexus are rare tumours, 54 only having been previously described; they tend to be commoner in early life. Though they may be present in any of the ventricles the greater number have occurred in the fourth ventricle, and they may be mistaken for acoustic tumours.

I should like to thank Dr. J. F. Ward for kindly allowing me the use of his clinical notes.

REFERENCES.

1. Cushing, H., *Intracranial Tumours.*
2. Leavitt, F., *Am. J. Med. Sc.*, Philad., 1929, CLXXVIII, 229.
3. Cushing, H., *Am. J. Dis. Child.*, Chicago, 1927, XXXIII, 551.
4. von Wagenen, W. P., *Arch. Surg.*, Chicago, 1930, XX, 199.
5. Guillain, G., Petit-Dutaillis, D., & others; *Rév. neurol.*, Paris, 1932, XXXIX, i, 497.