CASE REPORTS AND TECHNICAL NOTES

MENINGIOMA OF THE FREE MARGIN OF THE CEREBELLAR TENTORIUM

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The clinical history and the observations at necropsy are presented of a patient who had signs and symptoms of a growth involving the region of the 3rd ventricle. Craniotomy disclosed a seemingly inoperable neoplasm with the microscopic structure of a meningioma. It was discovered at necropsy that the growth originated from the free margin of the cerebellar tentorium near its junction with the falx cerebri and extended forward to reach the 3rd ventricle. The case is reported because of the rarity of a meningioma arising in this location and because of the clinical problem it presented.

REPORT OF CASE

L.B., a white woman aged 20 years, was admitted to the University of Oklahoma Hospitals, Feb. 23, 1946. For about 14 months she had had daily fronto-occipital headaches, with nausea for the last 3 months, but no vomiting. For 2 months there had been blurring of vision with episodes of momentary blindness; impaired hearing, mostly on the right; and difficulty in swallowing; and for 1 month unsteady gait and apraxia of the hands.

Examination. She was oriented, cooperative, alert, with some delay in reaction time. Temperature 98.6°F, pulse 82, and respirations 18. Blood pressure 124 systolic and 82 diastolic. The pupils reacted to light sluggishly, there was moderate papilledema, slight horizontal nystagmus, and right central facial weakness. Gait was unsteady and listed to the right. Babinski and other associated signs were positive on the right. There was loss of ability to perform skilled movements with the right hand. Romberg test was negative, and there was no ataxia and no dysmetria.

Urinalysis was essentially negative. Blood studies: rbc. 4,710,000; hb. 13.3 gm.; wbc. 14,000 with neutrophils 76, lymphocytes 22, and monocytes 2, per cent; Mazzini test negative. Roentgenograms of the head disclosed diffuse thickening of the skull with exaggeration of the convolutional markings, deepening of the sella turcica and thinning of the dorsum sellae. In the posterior parietal region a marked vascularity of the bone was evident. No pertinent changes were seen in a roentgenogram of the chest.

Fig. 1. Ventriculogram disclosing asymmetry and dilatation of lateral and 3rd ventricles. The posterior portion of the 3rd is displaced upward and to the right. Superimposed on lower half of left lateral ventricle is a sharply outlined globular field.
Ventriculograms on March 5 disclosed slight asymmetry and dilatation of the lateral ventricles. A filling defect was noted—a globular structure extending from the posterior portion of the 3rd ventricle upward so that there was some encroachment in the lateral ventricles medially. This was symmetrical on each side (Fig. 1). Ventricular fluid: no globulin; total protein 25 mg./100 cc.; Kolmer-Wassermann test negative; colloidal gold curve 0000000000.

Operation. A right frontal craniotomy disclosed a solid neoplastic mass encroaching upon the left posterior part of the 3rd ventricle. Removal was considered not feasible; a portion was obtained for microscopic study, and the wound was closed.

Histology. The specimen consisted of gray-white tissue, 0.6 by 0.5 by 0.3 cm. Microscopic study (Fig. 4) revealed round or oval, vesicular nuclei in a stream or whorl-like arrangement within a scanty cytoplasm fading into a delicate fibrillar ground substance. In the centers of some of the whorls there were deposits of lavender-blue granules. In addition to these psammoma bodies there were areas of necrosis and old and more recent extravasations of blood.

Course. The patient's condition became progressively worse, and she died on March 17, 12 days after operation.

Necropsy (12 hours after death) was limited to examination of the cranial content. The digitations of the inner surface of the calvarium were somewhat exaggerated. The dura mater was tense and over the right frontoparietal region it was covered with organizing clotted blood. Brain protruded through the openings in the parietal regions. The leptomeninges were delicate and transparent. The convolutions were flattened and the sulci were narrowed. No changes were noted in the dural sinuses. The sella turcica was somewhat broadened with the posterior clinoid processes inconspicuous. The hypophysis appeared somewhat flattened.

The brain weighed 1500 gm. The cerebral and cerebellar hemispheres, pons, and medulla oblongata were proportionate and symmetrical. There was a marked pressure cone over the cerebellum up to a depth of 3 cm. A marked pressure groove was noted also on the medial surface of each temporal lobe, about 0.5 cm. outward. The pons was somewhat prominent. The interpeduncular fossa was obscured by bulging of the infundibular region to a height of