OCCIPITAL EPENDYMOMA WITH EXTRACRANIAL METASTASES

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Many reports of primary intracranial tumors with extracranial metastases away from the central nervous system have appeared in the literature. Meningeal sarcomas, meningiomas,2 pineal tumors, hemangioblastomas, melanomas, and pituitary tumors, all have been described as metastasizing tumors. There have been fewer cases of gliomas with metastases reported in the literature. Ependymomas with metastases, a case of which is presented below, are of even more infrequent occurrence.

CASE REPORT

1st Admission, Mar. 21, 1951. A 27-year-old white male entered the hospital complaining of progressive headaches and visual blurring which had been present for the preceding 8 months.

Neurological examination revealed a bilateral papilledema, right homonymous hemianopsia, and right facial weakness. Skull x-rays demonstrated a left occipital calcific mass. EEG revealed abnormal electrical activity in the left occipital area.

Ventriculography and a left parietal-occipital craniotomy were performed on Mar. 27, 1951. A 5 cm. globular tumor was encountered attached to the parasagittal dura mater and invading the left occipital cortex. Because of the dural attachment and the vascularity of the tumor, the surgeon thought it to be a meningioma.

Microscopic examination revealed extensive necrotic areas with surrounding banks of tumor tissue. The neoplasm was felt to be a glioma by all observers, and it was reported as an ependymoblastoma by the Armed Forces Institute of Pathology.

The patient was discharged 3 weeks after operation with residual pressure symptoms.

2nd Admission, Mar. 15, 1952. The patient had had signs of increased intracranial pressure and convulsions for the preceding month. Neurological findings were similar to those during his previous hospitalization. Lumbar pressure was 250 mm. of water with a protein of 140 mg. per cent.

On Mar. 20, 1952, the operative site was reopened; a large intracerebral cyst and several tumor fragments were removed.

The patient was discharged 2 months later after receiving 5265 r to the tumor area, given through three ports—left parieto-occipital, posterior occipital, and vertex. The therapy was administered over a period of 6 weeks in 100–300 r daily doses.

Microscopic examination of the second operative specimen revealed a typical ependymoma pattern.

3rd Admission, July 8, 1953. Six months previously hard masses had developed in the patient’s neck (Fig. 1). He first noticed enlarged nodes in his left lateral cervical region, and later on the right side. For the preceding 2 months, symptoms of increased intracranial pressure had been present.

Examination revealed the scalp overlying the burr opening to be tense and enlarged, as if invaded by the tumor. A 4×6 cm. mass occupied the left lateral cervical area. On the right...
side a small 1×2 cm. node was palpable. Chest x-rays and standard laboratory tests were normal.

Removal of the right cervical node revealed tumor identical to the material obtained at the second operation. On July 16, 1953, a ventriculogram demonstrated ventricular displacement to the right. The left occipital horn was enlarged and practically reached the dura mater. Re-exploration of the operative area revealed considerable necrotic cortex extruding through considerable necrotic cortex extruding through the burr openings. A left occipital lobectomy was performed.

The patient improved temporarily, but progressively became more stuporous and died 2 months later on Sept. 28, 1953. Autopsy was refused.

Microscopic examination of the third operative specimen revealed necrotic and edematous tissue. No tumor tissue was seen.

Microscopic Examinations. The original tumor material demonstrates considerable calcification and necrosis. Figs. 2 and 3 show vascular attachments of elongated cells which are felt to be primitive ependymal cells. Figs. 4 and 5 are views of the same material in another

Fig. 1. Large cervical masses are demonstrated.

Fig. 2. Low power view of original neoplasm. Note attachment of cells to the blood vessel. Phosphotungstic acid hematoxylin (PTAH) stain, X99.