

CASE #4

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A 35 year old female was admitted to the hospital with a 3 week history of headaches, nausea and vomiting, and progressive difficulty in walking. At age 21, she had had a large, well circumscribed tumor removed from the right frontal lobe. A precise histological diagnosis was not established at that time, however, the lesion was believed to be a primary CNS neoplasm probably of glial origin. Subsequently, the patient was well until age 28 when symptoms recurred and a histologically similar tumor was again removed from the right frontal lobe. The lesion recurred at the same intracranial site 3 years later. Neuropathologic review of the material obtained at the third craniotomy as well as from the earlier operations disclosed that the histological appearance of the tumor had remained more or less uniform.

Since her last admission at age 31, the patient had had occasional focal seizures and had gradually become more withdrawn and less spontaneous in her interpersonal relationships. No definite evidence of recurrent tumor was seen in a CT scan carried out 2 years after her third craniotomy. She was followed at regular intervals until her final admission at age 35. At that time, a CT scan demonstrated multiple intracranial areas of tumor recurrence above and below the tentorium. In addition, chest x-rays demonstrated multiple tumor nodules scattered throughout both lungs. Cytologic studies of a needle aspirate of a lung lesion showed that the tumor cells were similar to those seen in the previous surgical specimens from the right frontal lobe. A portion of the aspirate was examined by electron microscopy and the results compared with those obtained by ultrastructural examination of small pieces of tumor removed from paraffin blocks of the earlier surgical specimens. The degree of structural preservation was sufficient in the latter specimens to demonstrate the close similarity between the ultrastructural characteristics of the lung lesion and the previous surgical specimens. The patient was given a single course of chemotherapy; however, she deteriorated and died 14 years after the original onset of symptoms. At autopsy, recurrent intracranial tumor and pulmonary metastases were found.

MATERIAL SUBMITTED: One (1) H & E and one (1) unstained section of recurrent cerebral tumor (autopsy specimen); one (1) 8 x 10 electron micrograph of metastatic lung tumor cells.

POINTS FOR DISCUSSION:

1. Histologic diagnosis of the tumor.
2. Histogenesis of the tumor.