Multiloculated Cystic Tumor of the Choroid Plexus of the Fourth Ventricle

Case Report

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Small, benign, asymptomatic cysts occurring within the choroid plexus are well known.7 Larger cysts, often causing symptoms, also occur but are rare within the fourth ventricle.6 In this report, we describe an extremely large, cystic mass located within the fourth ventricle which expanded into the adjacent subarachnoid space, producing a variety of symptoms that eventually led to the death of the patient.

Case Report

The patient, a 68-year-old white woman, was admitted to the Montefiore Hospital and Medical Center because of unstable gait and loss of manual dexterity. One year before admission she had had several "syncopal attacks," and 1 month before admission she first noticed an unsteady gait, a tendency to fall to the right, incoordination of the arms and hands, and vague numbness of the toes and fingers. During the succeeding month she developed slurring of speech, intermittent ringing in the right ear, slight weakness of the left arm, and intermittent ocipital headaches.

The patient had had arthritis for 30 years, treated with cortisone for the past 7 years, and a supracervical hysterectomy for undetermined reasons 20 years earlier.

Examination. Significant physical findings were confined to the nervous system. Although the patient was well-oriented, she showed mild inability to deal with mathematical calculations or abstract situations. The neck was supple. There was anosmia on the right. The visual acuity and optic fundi were normal. The corneal reflexes were slightly diminished bilaterally. The remainder of the cranial nerve examination was normal.

Muscle strength was good save for a questionable weakness of the left arm. There was a wide-based ataxic gait with a tendency to fall to the right side. Romberg's sign was present. Performance of heel-to-knee and finger-to-nose tests was impaired. Sensory examination revealed loss of vibratory sensation in the feet and, to a slight extent, in the upper extremities. Position sense in the fingers and toes was also impaired. There was moderate hypalgesia and slight hyphesthesia over the right side of the body below the fifth cervical segment. The superficial abdominal reflexes were absent. The remainder of the deep muscle reflexes were brisk but symmetrical throughout, and no abnormal reflexes were present.

A lumbar puncture revealed clear fluid with an opening pressure of 100 mm of water; the spinal fluid contained 120 mg of protein and 56 mg of sugar per 100 ml; no cells were present and the serology was negative. Skull x-rays were normal; spinal column x-rays showed spondylitis deformans affecting the entire column. A cervical myelogram demonstrated a transverse defect at the level of the fifth and sixth cervical vertebrae. Aortic arch and cerebral angiograms showed minimal concavity of the vertebral arteries due to spondylosis with no disturbance of blood flow. Arteriosclerotic plaques were noted in the right internal carotid artery. Tortuosity and segmental dilatation of the basilar artery were consistent with arteriosclerosis. Pneumoencephalograms showed absence of ventricular filling and a dilated callosal sulcus, suggesting a mass lesion in the posterior fossa. An electroencephalogram revealed random delta activity over both occipital lobes.

After admission, the patient rapidly de-
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teriorated, becoming increasingly ataxic, dysphagic, and dysarthric. Terminally, she developed signs of bilateral bronchopneumonia and died 2 weeks after admission.

Autopsy Findings. There was bilateral bronchopneumonia, generalized arteriosclerosis, and osteoporosis. The suprachordal portion of the uterus was absent; only a small fibrotic cervical stump remained. No tumor was present in any organ.

The unfixed brain weighed 1370 gm. The cerebral hemispheres were normal on external inspection as well as on serial coronal section. The lateral and third ventricles were of normal size. The choroid plexuses within these ventricles were normal.

External examination of the cerebellum and brain stem revealed multiple, thin-walled, semitranslucent cysts located within the subarachnoid space between the medulla and the left cerebellar hemisphere and obscuring the left foramen of Luschka (Fig. 1).

Fig. 1. Basilar view of the cerebellum and caudal brain stem. Multiple thin-walled semitranslucent cysts are present in the subarachnoid space between the medulla and left cerebellar hemisphere, obscuring the left foramen of Luschka. Note the displacement of the left vertebral artery by a cyst (arrow).