CASE REPORTS AND TECHNICAL NOTE

SPINAL CORD COMPRESSION BY AN INTRAMEDULLARY ANEURYSM

CASE REPORT AND REVIEW OF THE LITERATURE

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(Received for publication December 14, 1956)

Congenital aneurysms of the vessels of the spinal cord have been reported only rarely. It is of interest, therefore, to present the case of a patient who manifested spinal cord symptoms caused by such a lesion. A review of the reported cases indicates that certain features in common may allow one to entertain a diagnosis.

CASE REPORT

LP., a 41-year-old housewife, was admitted to the hospital on July 27, 1955, having enjoyed good health until February, 1954. After becoming pregnant, she had gradual onset of pain in the left forearm, the pain spreading upward across the chest anteriorly and down the right arm. After 3 days cervical traction was applied with relief of pain. On being mobilized she was slightly unsteady and ataxic. In July, 1954, she was delivered by Caesarean section. The pains in the arms reappeared, continued, and were accompanied by pains in both legs. These were aggravated by motions of the head and neck. Initiation of micturition became more difficult after the section. There was loss of bowel sensation and she had numbness of the buttocks. Two weeks prior to admission, her gait became rapidly weaker.

Examination. The patient was a well developed woman who could not stand unsupported. The cervical and thoracic spines were normal to gross inspection and palpation. Perception of pain was diminished bilaterally below T1, but was preserved in the left lower extremity. Loss of heat sensation, but preservation of perception of cold, was found below T4. Vibration sense was absent in both lower extremities. Postural sensation was absent in the left toes and ankle, but preserved in the right. There was marked weakness of the entire left lower extremity, while motor power was normal in the right. Motor power in both upper extremities was good, except for moderate weakness and atrophy of the intrinsic muscles of the hands, which were more pronounced on the left side. The fingers were thin and spindle-shaped. No fibrillations were evident. The deep tendon reflexes were active and equal. The toes were dorsiflexed on plantar stimulation.

The hemogram was normal and chemical studies of the blood revealed no abnormalities. Cerebrospinal fluid pressure was normal, with no evidence of obstruction. The fluid was clear and colorless, containing 1 lymphocyte per c.mm.; proteins were 50 mg. per 100 cc. The colloidal gold curve was normal; the Wassermann reaction was negative.

Roentgenograms of the chest were normal. Pantopaque myelography showed temporary arrest of the column at the level of the 7th cervical segment. The column flowed around this area, implying an intramedullary lesion.

The symptomatology was attributed to either a syringomyelic cyst or an intramedullary tumor.

Operation. On Aug. 2, 1955, a cervicodorsal laminectomy revealed a blue, discolored area beneath a tense dura mater, at the level of the 7th cervical segment. On incision and retraction of the dura mater, a rounded, blue, cystic intramedullary lesion of the left half of the spinal

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cord was uncovered (Fig. 1). The dorsal columns were spread thinly over this lesion. A needle, introduced into the lesion, recovered a chocolate-colored fluid. No fresh blood was encountered. The pia arachnoid, over the dome of the lesion, was incised longitudinally, and the remnants of the posterior columns were separated gently from it. The dome of the lesion was incised with the escape of more chocolate-colored fluid. With gentle dissection the well circumscribed lesion was separated from the medullary portion of the spinal cord, revealing two arterial vessels at its medial aspect. These were clipped. The main mass of the pea-sized structure was separated easily from the spinal tissue, leaving a capillary bed. During the course of dissection, and after delivery of the lesion, it appeared to have the gross characteristics of a thrombosed aneurysm. A needle was introduced into the cervical enlargement superiorly to eliminate the possibility of an associated syringomyelic cavity. None was encountered.

Postoperative Course. Paresthesias of both arms were troublesome for 5 days and then cleared gradually. By the 8th day the sensory changes had regressed almost completely on the left side, but only to T4 on the right. Motor power in the left extremity improved considerably and, with physiotherapy, the patient resumed walking. Sensibility and control of the bladder were regained. Three weeks after surgery the sensory changes, to pain and heat, were still detectable on the right below T6. There were none on the left. Vibration sense was absent in both toes and ankles. The postural sense was intact on the right and absent on the left. The toes were in plantar flexion. Gait had improved to the point where the patient could walk unsupported.

Pathological Report. The wall of the aneurysm (Fig. 2) was composed of collagenous tissue

Fig. 1. The spinal cord showed a blue, rounded mass within the left intramedullary portion beneath the posterior columns.