SPONTANEOUS HEMATOMYELIA AND ANGIOMAS OF THE SPINAL CORD

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The term spontaneous hematomyelia has been used for a number of years to describe the sudden onset of pain and rapid development of long tract signs in a previously asymptomatic individual. Although numerous cases have been reported, the etiology in most instances has been obscure. Syphilis, spinal cord tumors, myelitis, hemorrhagic diathesis, aneurysm, angioma, and trauma have been listed as the various causes of intramedullary bleeding. Hematomyelia caused by angiomatous malformations has been reported by Richardson, Buckley, Gatenby, Wyburn-Mason, Hicke, and Vraa-Jensen. In 1938, Richardson, in discussing the etiology, stated "intramedullary vascular tumors and malformations may eventually prove to be the commonest cause with syphilis, acute myelitis and arteriosclerosis contributing a smaller share." The significance of this statement seems to be confirmed by the fact that in all 3 cases of hematomyelia that we have encountered the cause of the bleeding was proven to have been small angiomatous malformations. For this reason, the following cases are reported and the syndrome is compared to that of extramedullary vascular malformations.

HEMATOMYELLA SECONDARY TO INTRAMEDULLARY ANGIOMA

Case 1. E.J., a 35-year-old white female, was admitted to Duke Hospital on Mar. 6, 1950. In January 1950, she had first noted numbness of the thumb and index finger of the left hand, followed by severe pain in the neck. The pain continued until March, by which time progressive weakness and numbness of all extremities had developed.

Examination revealed generalized weakness, more marked in the lower extremities and left arm, impairment of sensation to C6 and increased deep reflexes. Roentgenograms of the spine, manometric studies and myelogram showed no abnormalities.

Course. Her condition gradually improved and by August 1950 she was able to get around on crutches. In October 1950, there was an increase in her numbness and weakness and she had difficulty in voiding, which gradually progressed.

Readmission, Dec. 6, 1950. Examination revealed marked weakness of all extremities with a flaccid paralysis of the left arm. The sensory level extended up to C5. The cerebrospinal fluid was clear and colorless, contained no cells, and total proteins were 52 mg. per cent. Manometric findings were normal but myelography revealed enlargement of the cervical cord.
Operation. Cervical laminectomy, C2-C6. The cervical cord was enlarged and there was an area of bluish-purple discoloration in the posterior column on the left, extending from C3 to C4. An intramedullary hematoma was evacuated, leaving a cavity from C3 to C5. Several small vessels were encountered entering the hematoma. There were no abnormal vessels on the surface of the cord and there was no evidence of subarachnoid hemorrhage.

Pathological Report. Tissue removed from the wall of the hematoma revealed a number of vessels of various sizes, the walls of which were composed of a single endothelial layer. Some of the vessels were grouped together with their walls intact while others were separated by hemorrhagic cord tissue (Fig. 1).

Postoperative Course. There was improvement in motor function which gradually progressed for several months.

Readmission, Nov. 7, 1951. She was readmitted because of the sudden onset of pain low in the back and in the left leg, of 3 weeks' duration. Neurological findings at this time were weakness of the left arm, good motor function of the lower extremities, decrease in all sensory modalities from C5 down, and bilateral plantar extension. Myelography revealed a defect in the lower lumbar region.

2nd Operation. Laminctomy, L5, revealed an ependymoma. A subtotal resection of the tumor was carried out.

Postoperatively, she was given a series of roentgen-ray therapy.

Case 2. V.L.T., a 33-year-old colored female, was admitted to Duke Hospital on Sept. 17, 1953. Four days previously, severe pain had developed in the right arm and, shortly afterwards, less severe pain in the left arm. On the second day, there