CASE REPORTS AND TECHNICAL NOTE

SPINAL EXTRADURAL CYSTS

REPORT OF A CASE

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Compression of the spinal cord by an extradural cyst is a relatively rare lesion. Elsberg, Dyke and Brewer were the first to describe such a lesion, reporting 4 cases. The original description can hardly be improved upon:

"The individual is an adolescent with the history and symptoms of a progressive spastic paraplegia. Pain is absent or is not a prominent symptom. The objective disturbances of sensibility are slight and their upper level is in the mid-thoracic region, usually at the sixth or seventh thoracic dermatome. The manometric tests demonstrate a subarachnoid block with the characteristic spinal fluid changes of cord compression. Measurements on antero-posterior x-ray films show that the interpedicular spaces of three or more vertebrae somewhere between the fourth and the tenth thoracic vertebrae are enlarged. The pedicles of the affected vertebrae, especially those of the sixth, seventh and eighth, are narrowed and atrophic."

Lehman reported 2 cases; Mixter another. Cloward and Bucy described 2 cases, one of which was associated with kyphosis dorsalis juvenilis, and made a critical review of all former cases that had been studied. Peet and Kahn, Swanson and Fincher, and Haffner subsequently presented additional cases. Jacobs, Smith and Van Horn were the first to report a case in which a communicating cyst filled spontaneously from the subarachnoid space during myelography. The author's case, likewise, demonstrated such a communication. Hyndman and Gerber, Adelstein, Turnbull, Krauss, Good, Adson and Abbott, and Mayfield and Grantham have all reported additional cases.

CASE REPORT

C.E.W., a 48-year-old welder, was first examined on Nov. 19, 1953 complaining of pain in the left low back and hip, which radiated down the left leg to the foot. On June 12, 1951 he had stepped off a truck and slipped on a small rock and had fallen, spraining his right ankle. Because of pain, he was disabled, except for light work.

Two weeks after his injury, intermittent pain appeared radiating into the left hip and down the left leg. In May, 1953 he became aware of some numbness of the left leg and foot. By July, 1953 some weakness of the left leg with accompanying atrophy of the muscles had appeared. Coughing, sneezing or straining did not aggravate the pain. However, standing for long periods of time caused his low back and left leg to ache. He favored his left leg when walking and could not walk more than one-half mile. Following exercise his left leg became so tired he could hardly move it.

Examination. The right calf measured 37.3 cm., the left 34.0 cm. in circumference. All the muscles of the left lower extremity were weaker than those on the right. This weakness applied

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to inversion, eversion, plantar flexion, and especially dorsiflexion of the left foot. His gait was spastic with the left leg. He bent forward until his fingertips came within ten inches of the floor. Backward bending, as well as bending to the right and left, were only slightly restricted. All back bending motions caused only slight discomfort in the region of the left hip.

The left gluteus maximus muscle was more flaccid than the right. No tenderness could be made out by heavy pressure or percussion anywhere along the entire spine. A slight degree of hypesthesia existed to temperature and pain below the 8th, or possibly the 9th, dorsal cord segment; this seemed more marked on the left than on the right. Vibratory sensibility was decreased in the left leg below the knee. Light touch and position sense were everywhere preserved.

Patrick's test caused some discomfort in the left hip region. Increasing the intra-abdominal pressure produced pain in the left hip. Straight leg raising could be carried to 80°, right and left. Laségue's sign was bilaterally negative.

Superficial abdominal and epigastric reflexes were absent on the right, sluggish on the left. Deep reflexes of both upper extremities were moderately active and equal. Patellar and knee jerks were much quicker on the left than on the right, almost to the point of spasticity. Deep tendon reflexes were active and equal, the left perhaps a little quicker than the right. Chaddock and Babinski signs were strongly positive on the left, negative on the right. There was no ankle clonus.

Electromyography on Nov. 19, 1953 revealed no fibrillation of denervation. All motor unit activity was normal.

Radiological Studies. Roentgenograms made previously on Nov. 4, 1952 revealed a moderate scoliosis centering at the 2nd lumbar interspace with the convexity to the right and with marked narrowing of the 4th and 5th lumbar interspaces. There was considerable eburnation in the bone adjacent to the articular facets on the right between the 3rd and 4th and the 4th and 5th lumbar vertebrae.

Pantopaque myelography on Nov. 5, 1952 showed a shallow indentation on the left side at the 4th lumbar interspace, which was considered to be related to the scoliosis of the lumbar spine and which centered at that point. It did not seem to represent a protruded intervertebral disc. Spinal fluid examination at that time revealed a clear, colorless fluid, with 3 cells and total protein of 50 mg. per cent.

Two points are worth mentioning regarding these previous studies. First, the x-rays did not include the dorsal spine, which would have revealed the pathology; and, second, the pantopaque was not allowed to pass upward into the mid-dorsal region.

A lesion of the spinal cord was suspected. Former examiners leaned toward a diagnosis of degenerative disease of the central nervous system, such as multiple sclerosis.

On Feb. 3, 1954 views of the dorsal spine were performed. These showed the pedicles in the 6th, 7th and 8th dorsal vertebrae to be absent (Fig. 1). The 7th dorsal vertebra

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**Fig. 1.** Roentgenogram showing widening of the spinal canal with absence of the pedicles of the 6th, 7th and 8th dorsal vertebrae.