OSTEOCHONDROMA OF THE LUMBAR SPINE

REPORT OF A CASE

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One of the most common benign tumors of bone is the osteochondroma. These tumors are usually found at the ends of the long bones of the extremities, but they may also arise from any part of the skeletal system, bones of the jaw, skull, hand, and foot. The vertebral column is rarely a site for these lesions. Meyerding\(^2\) reported the removal of 265 exostoses from 235 patients and among these only one tumor was located in the lumbar spine. In 310 cases reported by Geschickter and Copeland,\(^2\) the tumors involved the vertebrae in 10 cases. Another interesting case of osteochondroma related to the vertebral column was discussed by Ilgenfritz.\(^3\) In this latter case the osteochondroma grew from the 7th cervical vertebra anteriorly and it was diagnosed as a thyroid tumor before the exploration.

The following unusual case of osteochondroma arising from the lumbar spine exhibited the signs and symptoms of compression of the cauda equina.

CASE REPORT

Mrs. V.H., a 24-year-old white housewife, referred by Dr. Donald B. Douglas of Waukegan, Illinois and Dr. E. A. Kahn of Ann Arbor, Michigan, was first admitted to the Neurosurgical Service at The Chicago Memorial Hospital on Feb. 28, 1950. Her main complaints consisted of a hard mass attached to the lumbar spine, weakness and numbness in the left leg, urinary incontinence and constipation.

She stated that she had been in good health until she was 6 years old when a hard mass began to grow on her lumbar spine; later similar masses appeared about both knees, the left ankle, and the left humerus. These masses increased slowly in size. About 1 year later, part of the mass in the lumbar region was excised for cosmetic reasons. She had had no neurological symptoms pertaining to these masses until 1943 when pain developed in her buttocks and lower extremities. The left leg became numb and weak. She was placed on bed rest with the diagnosis of possible rheumatic arthritis. She was symptom free in about a month. One year later she was hospitalized with pneumonia during which time weakness developed in her left foot and toes, and this weakness continued thereafter. In 1948 she became pregnant. She had a normal delivery but subsequently she complained of constant constipation which required cathartics. In September 1949 she started to have pain in her left lower lumbar region which radiated down to the lateral aspect of the left thigh. The pain in the back was constant for about 1 month. Five months before admission her whole left lower extremity became numb and remained so. Two months before admission she began to have constant dribbling of urine during the night together with urgency and frequency in the daytime. At about the same time some numbness developed in the right foot.

The family history revealed that her father and her brother, and also a grandfather, had bony masses removed from their legs.

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Examination. The patient was well developed, well nourished, alert and cooperative. Her blood pressure was 110/50, pulse 100, and temperature 98.8°. There were bony masses in the left forearm, on the medial aspect of the right knee, above and below the joint, on the lateral aspect of the left thigh, below the left knee joint on the medial side, in addition to a large hard mass in the lower lumbar region. Hypalgesia and hypesthesia were found below the level of the 5th lumbar dermatome on the left side and below the 3rd sacral on the right. There was a slight loss of position and vibratory sensibilities in the left lower extremity. There was slight weakness of the biceps and triceps muscles in the left arm. There was definite weakness in the left leg, slight in the quadriceps and hamstrings, but marked in dorsiflexion of the foot and the big toe. There was slight atrophy of the right thigh and calf. The abdominal reflexes were absent. The left knee jerk was decreased and the left ankle jerk was absent. Babinski's sign was not elicited. She walked with a slow, uncertain gait, limping on the left leg.

The blood count and urine were normal. Wassermann and Kahn tests on the blood were negative.

Roentgenograms of the lumbar spine showed a large irregular calcified mass with varying degrees of density and a rather smooth scalloped border which arose from the lumbar spine. The mass was particularly large on the right side, where it extended for a distance over 7.5 cm. lateral to the vertebrae. The process involved the 2nd, 3rd, 4th, and 5th lumbar vertebrae (Fig. 1). Films of both knees revealed multiple exostoses arising both from the distal ends of the femora and the proximal ends of the fibulae. There were multiple exostoses at the