CHORDOMA OF THE THIRD LUMBAR VERTEBRA

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Chordomata usually occur either in the base of the skull or in the sacro-coccygeal region. A chordoma arising in the third lumbar vertebra is sufficiently unusual to be worth recording, especially as this case provides also an opportunity to emphasize the value of biopsy in obscure lesions of the vertebrae.

A man aged sixty-four was first seen in February 1947. He complained of pain in the lumbar region which had been present for a number of years but had been much worse during the last two years after a fall when he sat heavily from the standing position.

On examination he was very thin. His complexion was of an earthy hue and his skin was dry. The dorsal and lumbar regions of the spine were fixed in a continuous C curve. There was wasting of the lower limb muscles. The deep reflexes were depressed. There were no other abnormal physical signs. Examination of the chest, abdomen, pelvis and the rest of the body revealed no signs of abnormality. Radiographs of the dorsal spine showed marked osteoarthritic changes and wedging of a number of vertebral bodies as in old-standing Scheuermann’s disease. The changes in the lumbar spine are shown in Figure 1, and on the basis of these radiographic appearances a diagnosis was made of secondary deposit from a malignant tumour.

When seen again in March 1948 his general appearance was much as it had been a year previously. He complained that the pain in his back was worse and his legs were so weak that he could hardly stand. Examination showed increased kyphosis of the lumbar spine. The muscles of the lower limbs were wasted and weak but no muscle was paralysed. The knee jerks and ankle jerks could not be elicited and the plantar responses were equivocal. There was no demonstrable area of cutaneous sensory loss but he said that his legs felt numb.

FIG. 1
Chordoma of the third lumbar vertebra. Extensive destruction is seen in the lateral radiograph.
and that sensation was less acute below the level of the knee joints. There was loss of joint sensation in the toes. Radiographs showed increased destruction of bone.

Biopsy was performed through a left paravertebral incision. The left transverse process of the third lumbar vertebra was exposed and resected; this afforded excellent access to the body of the third lumbar vertebra which was found to have been replaced by friable red-brown vascular tissue interspersed with small fragments of bone. On histological examination the tumour was considered by Professor H. L. Sheehan to be a chordoma (Fig. 2).

The pain, which had been severe from the beginning, became so unbearable that the patient and his relatives, though fully realising the risk, begged that something should be done. The tumour was therefore exposed through a right paravertebral incision. Rather unexpectedly a large extra-vertebral mass was found, roughly spherical in shape, two and a half inches in diameter, of rubbery consistency, apparently encapsulated, pushing forwards the peritoneum, ureter, abdominal organs, aorta and inferior vena cava. To obtain adequate exposure it was necessary to make a further transverse incision in the muscles of the abdominal wall extending laterally from the vertical incision. This gave excellent access and the greater part of the tumour was excised. The third right lumbar nerve was sacrificed. A few days after operation the patient's condition was good; sphincter function remained unimpaired and the condition of the lower limbs was unchanged. Two weeks later he collapsed and died.

Comment—It is felt that if the biopsy had been performed earlier the chances of success would have been greater. In view of the ease with which the lateral aspect of a vertebra can be approached it is suggested that doubtful lesions should be investigated in this way at the earliest possible moment.