Case Report

Unusual presentation of thoracic disc herniation

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SUMMARY A 24-year-old patient with thoracic disc herniation mimicking lumbar disc disease is reported. While getting out of his car the patient suffered an acute onset of lumbar pain radiating down to the buttock and vaguely into the abdomen on the right. Myelography and computed tomography demonstrated a centrolateral noncalcified disc herniation at T10-11, in close relation to a Schmorl's node. The different clinical presentations of thoracic disc herniation are discussed.

Key words: Thoracic Disc Herniation, Scheuermann's Disease, Lumbo-Sciatica.

INTRODUCTION

Symptomatic thoracic disc herniations (TDH) are rare. The features of 280 cases from the literature have recently been summarized (1). TDH account for approximately 0.25% to 0.75% of all disc herniations. Peak incidence is in the fourth decade of life. Only exceptional cases occur in children and young adults. The clinical manifestations differ widely from the well-known acute and recurrent picture of root compression by lumbar or cervical disc herniation. Diffuse dorsal pain and spinal cord compression progressing over months or years is the prominent mode of presentation. The wide differential diagnosis therefore includes spinal tumors, cervical myelopathy, multiple sclerosis and other spinal cord and even intracranial pathologies (1-5). A radicular component to the back pain is common, but isolated root pain occurs in only 9% of patients (1); depending upon the level of the compressed thoracic root, this pain has to be differentiated from diseases of the heart, kidney, bowel and other thoracic or abdominal organs (3,5). Acute and subacute presentation of TDH occurs in less than 10% of cases (1). Typically, it is the consequence of a soft herniation and it is preceded by minor trauma. A progressive course over months or years is predominant with calcified herniations related to degenerative disc disease, and occurs in more than 90% of patients (1).

We present an unusual case with symptoms suggesting acute lumbar disc disease.

CASE REPORT

This 24-year-old man was complaining of intermittent low back pain for the past 4 years after a minor car accident. A few days prior to admission he suddenly suffered from an acute onset of severe lumbar pain and stiffness while getting out of his car. The pain radiated into the right buttock and vaguely around the trunk into the right upper abdo-
men. It was worsened by respiratory movements, cough, prone and sitting position, and relieved in the lordotic upright position. On admission there was severe stiffness of the thoracolumbar spine, spasm of the paravertebral muscles and slight scoliosis. Palpation and percussion of the spine were not painful. Lasègue's manoeuvre on either side provoked right paravertebral lumbar pain. The neurological examination revealed a band of hypesthesis in the right paravertebral area at the approximate level of T9. There was no deficit in the lower limbs except for a doubtful increase of the knee jerk and a decrease of vibratory perception in the toes on the right. Plantar reflexes were flexor. Standard X-rays of the dorsal and lumbar spine showed slight scoliosis, sequelae of Scheuermann’s disease at the level of T 10-11. No calcifications were visible in intervertebral discs or in the spinal canal. Bone scintigram was normal. Electromyography of the lower limbs and the paravertebral and the abdominal muscles was normal. Thoraco-lumbar myelogram with water-soluble contrast medium (Fig. 1) followed immediately by computed tomography (CT) (Figs. 2 and 3) showed a right lateral non-calcified disc herniation at the level of T10-11. The disc fragment was laying next to a postero-lateral Schmorl’s node. The examination of the lumbar segment was normal. Lumbar cerebro-spinal fluid showed a slight increase in protein content. The patient was operated through a unilateral foraminotomy and laminectomy. The disc was ruptured and a fragment of the nucleus pulposus was partially extruded. During the postoperative follow-up over 18 months, all pain and spinal limitation disappeared. The neurological examination was normal.

DISCUSSION

The diagnosis of TDH is often delayed or overlooked (1,3-6). The most frequent reasons for this are the slowly progressive course in a middle or old-aged patient in the absence of notable spinal pain which would point to the focal pathology. In our case, different clinical features were responsible for the delay of proper diagnosis. These are: young age, acute onset, and symptoms pointing to the much more common lumbar disc disease.

Only 3% of all TDH occur below the age of 20, and 5% between 20 and 30 (1). Scheuermann’s disease has been associated with TDH in a few cases. This subject has been reviewed (7). TDH related to Scheuermann’s disease, as compared to the usual herniation, would occur in younger patients at a higher level and from multiple discs. Our patient presented Scheuermann’s disease, and the disc extrusion occurred in close relation to a Schmorl’s node. This would support the hypothesis of a close link between the two diseases.