CASE REPORT

Spinal Cord Hemangioblastoma with Extensive Syringomyelia

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We present the case of a 20-year-old male with intermittent right upper extremity numbness for 3 months. His pain perception and temperature sensation were severely disturbed. An incidental magnetic resonance imaging (MRI) finding of one small intramedullary enhancing nodule at spinal cord level T10–11 with long-segment syrinx formation suggested the diagnosis of spinal hemangioblastoma with syringomyelia. Surgical removal of the tumor and decompression of the spinal cord with opening of the syrinx were performed smoothly, and the pathology confirmed the diagnosis of spinal hemangioblastoma. Reviewing the literature, MRI is the examination of choice for spinal hemangioblastomas, and is helpful in preoperative planning and the differential diagnosis of spinal cord neoplasms and vascular lesions. [*J Chin Med Assoc* 2005;68(1):40–44]

Key Words: hemangioblastoma, spinal cord neoplasm, syringomyelia, von Hippel-Lindau disease

Introduction

Hemangioblastoma is a common posterior fossa tumor in adults, but it is a relatively rare tumor of the spinal cord, accounting for 1–5% of all spinal cord tumors.[1–3] Here, we present a case of spinal hemangioblastoma with extensive syringomyelia and typical features on magnetic resonance imaging (MRI) and spinal angiograms. The literature is reviewed, and radiologic appearances of spinal hemangioblastomas and the pathogenesis of syrinx formation in spinal hemangioblastoma are discussed.

Case Report

A 20-year-old male had intermittent right upper extremity numbness for 3 months. His pain perception and temperature sensation were severely disturbed. At first, electromyography revealed suspected right C6–7 radiculopathy. Whole-spine MRI showed an intramedullary enhancing nodule, about 10 mm in size, in the right anterior portion of the spinal cord at level T10–11 (Figure 1), and a long segment of syrinx with multiple internal septa from the cervicomedullary junction to level T11 (Figure 2). High signal change of the spinal cord from T12 to the tip of the conus medullaris was also noted on T2-weighted images (T2WIs), indicating edematous change of the cord parenchyma (Figure 1B). Spinal angiograms showed a 15 mm hypervascular tumor, fed by a radiculopial artery arising from the right T12 intercostal artery (Figure 3). No family history of von Hippel-Lindau disease (vHLD) was noted, and brain MRI showed negative findings. Under the impression of an intramedullary tumor with extensive syringomyelia, laminotomy over T9–T12 was performed and showed an intramedullary vascular lesion at the right anterolateral aspect of T10–11 of the spinal cord, with a long segment of syrinx and cord swelling (Figure 4). Total removal of the tumor and decompression of the cord with syrinx opening were performed smoothly. The pathologic diagnosis was hemangioblastoma. The postoperative condition was uneventful, and the pa-

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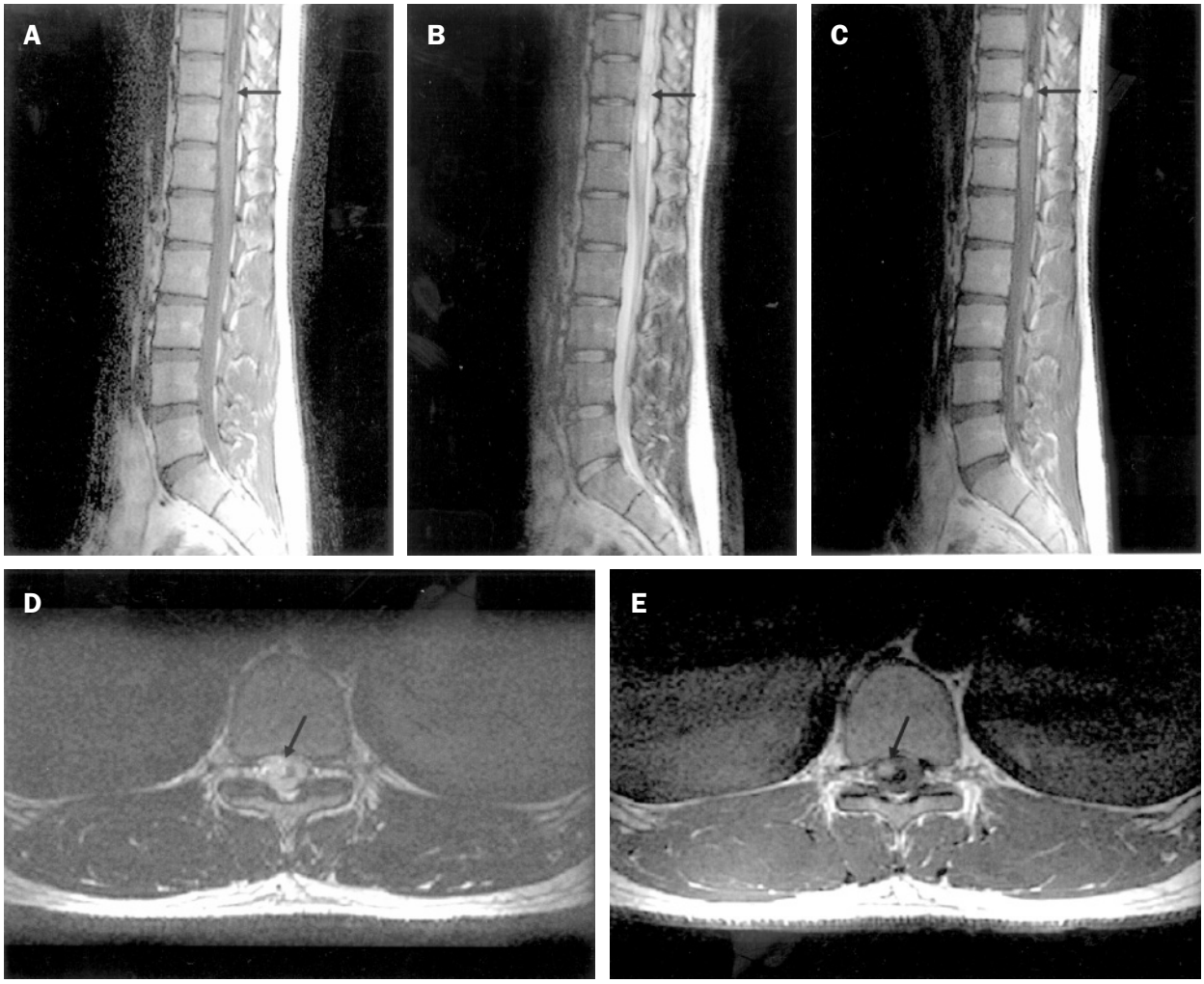

Figure 1. Fat saturation magnetic resonance imaging scans of the lower thoracic and lumbar spine showed an intramedullary enhancing nodule (arrow), about 10 mm in size, in the right anterior portion of the spinal cord at level T10–11: (A) sagittal T1-weighted image (T1WI); (B) sagittal T2-weighted image (T2WI); (C) post-gadolinium-enhanced sagittal T1WI; (D) axial T2WI; (E) axial T1WI. High signal change of the spinal cord from T12 to the tip of the conus medullaris was also noted on T2WIs, indicating edematous change of the cord parenchyma (B).

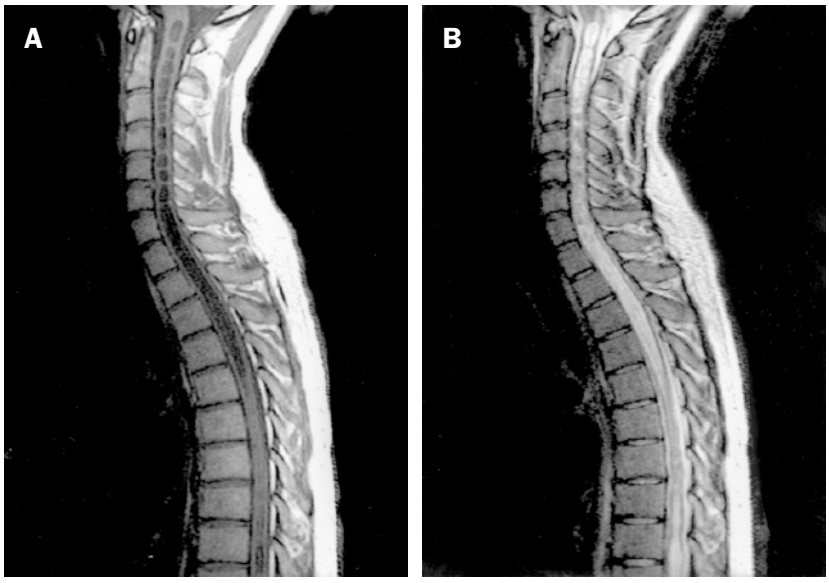

Figure 2. Magnetic resonance imaging scans of the C1–T9 spine showed a long segment of syrinx with multiple internal septa from the cervicomedullary junction to level T11: (A) sagittal T1-weighted image; (B) sagittal T2-weighted image.