



A rare case of atypical noncontiguous multiple spinal tuberculosis

A 25-year-old man was referred to our department who presented with neck and back pain for 2 months and numbness and weakness of four limbs for 2 weeks. The physical examination of the patient showed hypoesthesia below C5, myodynamia of four limbs weakened to Grade 3 to 4, Hoffmann sign (+), and Babinski sign (+). The results of laboratory examinations showed that erythrocyte sedimentation rate was 107 mm/h, C-reactive protein was 128 mg/L, kappa was 14.50 g/L, lamda was 8.42 g/L, cancer antigen 15-3 was 43.40 U/mL, and cancer antigen 72-4 was 18.87 U/mL. Computed tomographic images showed circular lesions of bone destroy spread over multiple spinal segments including C3–C6, T2–T5, T11–T12, L1, L3, L5, S1, and S2. Sequestrum can be found at the center of each lesion. Cervical magnetic resonance imaging (MRI) revealed fusiform paraspinal abscess located at C3–C6 and T2–T5 without obvious damage of all the intervertebral discs. The longitudinal abscess lesion at the antethca of spinal canal from C3 to C6 compresses the spinal cord significantly. Lumbar MRI revealed inhomogenously and rounded T2 hyperintensity in all the involved vertebral bodies (Fig. 1). Although spinal tuberculosis or tumor was

indefinite before operation, this patient underwent posterior approach of cervical spine surgery including decompression, screw fixation, and bone graft fusion. Diagnosis of multiple spinal tuberculosis was made based on the positive result of pus culture and histopathologic examination. Normative antituberculosis therapy for 12 months was applied. Neck and back pain was gradually relieved and significant improvement of the neural function of limbs was achieved. He was able to sit up and walk without stick at 6 months of follow-up. The CT scan and MRI at 1-year follow-up showed that the abscess that compress the spinal cord in the cervical spinal canal was disappeared, and all the circular lesions of bone destroy were healed apparently (Fig. 2).

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Fig. 1. Computed tomographic images showed that circular lesions of bone destroy spread over multiple spinal segments and sequestrum can be found at the center of each lesion. Magnetic resonance imaging (MRI) revealed fusiform paraspinal abscess located at C3–C6 and T2–T5 without obvious damage of intervertebral discs, and the longitudinal abscess at C3–C6 compresses the spinal cord significantly. Lumbar MRI revealed inhomogenously and rounded T2 hyperintense in all the involved vertebral bodies. The arrow in part B, C and E showed the rounded sequestrum in the vertebral body; the arrow in part D showed the paravertebral abscess and the uninvolved cervical discs.



Fig. 2. The computed tomographic scan and magnetic resonance image at 1-year follow-up showed that the abscess that compress the spinal cord in the cervical spinal canal was disappeared, and all the circular lesions of bone destroy were healed apparently.