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IMAGES OF SPINE CARE

Tuberculosis of lower cervical spine (C4–C5) with severe angulation

A 28-year-old man presented with 4-month history of neck stiffness associated with progressive deformity of cervical spine and bilateral paresthesia-interested shoulders. There were no histories of falling or fever. On examination, there was a reduced range of movement of the cervical spine without other neurologic deficits. Radiography of cervical spine showed a mark reversal of the cervical spine lordosis, slight drop of C5, important anterior displacement of C4 on C5, and increased posterior interspinous distance (Fig. 1). Chest radiography and thoracoabdominal computed tomography scan were normal. Cervical magnetic resonance imaging (MRI) was performed. Sagittal T2-weighted MRI revealed a spinal cord angulations with mild compression associated with thinness of paravertebral soft tissues (Fig. 2, Left). T1-weighted MRI with injection of gadolinium showed enhancement of paravertebral soft tissues and discale involvement (Fig. 2, Right). Biological findings were as follows: C-reactive protein of 12 mg/L, erythrocyte sedimentation rate was raised (17 mm), white blood cells were normal, HIV and hepatitis serology were negative, and examination of bronchial secretion after Ziehl-Neelsen returned negative. Skull traction was applied and increased gradually; the weight used ranged between 6 and 12 kg and continued for 1 week with good reduction. Patient underwent surgery using anterior approach; debridement, discectomy C4–C5 and C5–C6, corpectomy C5, tricortical bone grafting, and insertion of a cervical plate were carried out (Fig. 3). Pathological analysis of disc specimen revealed areas of extensive caseous necrosis with epitheloid granulomas, langerhans giant cells, lymphocytes, and plasma cells. Patient was put on adequate dose of antibacilli and ERIP (ethambutol, rifampicin, isoniazid, and pyrazinamide) for 3 months followed by RI (rifampicin, isoniazid) for 12 months. Postoperative course was uneventful.

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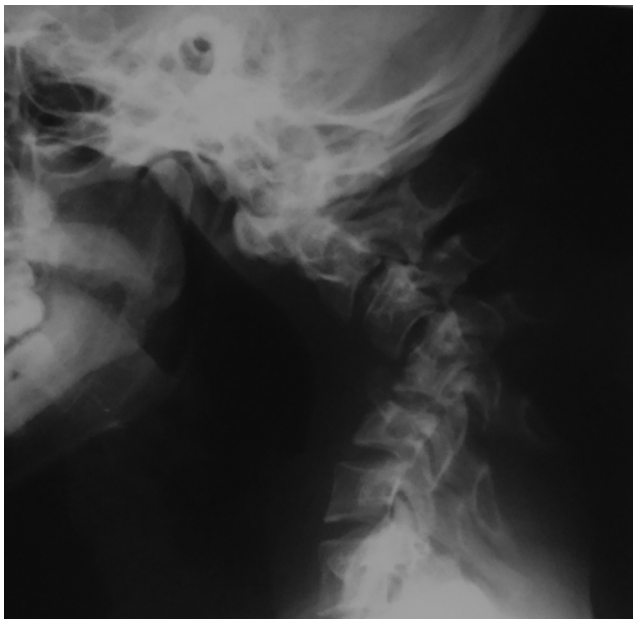

Fig. 1. Radiography of cervical spine showed a mark reversal of the cervical spine lordosis, slight drop of C5, and important angulation.

FDA device/drug status: Approved: Ethambutol, Rifampicin, Isoniazid, Pyrazinamide.

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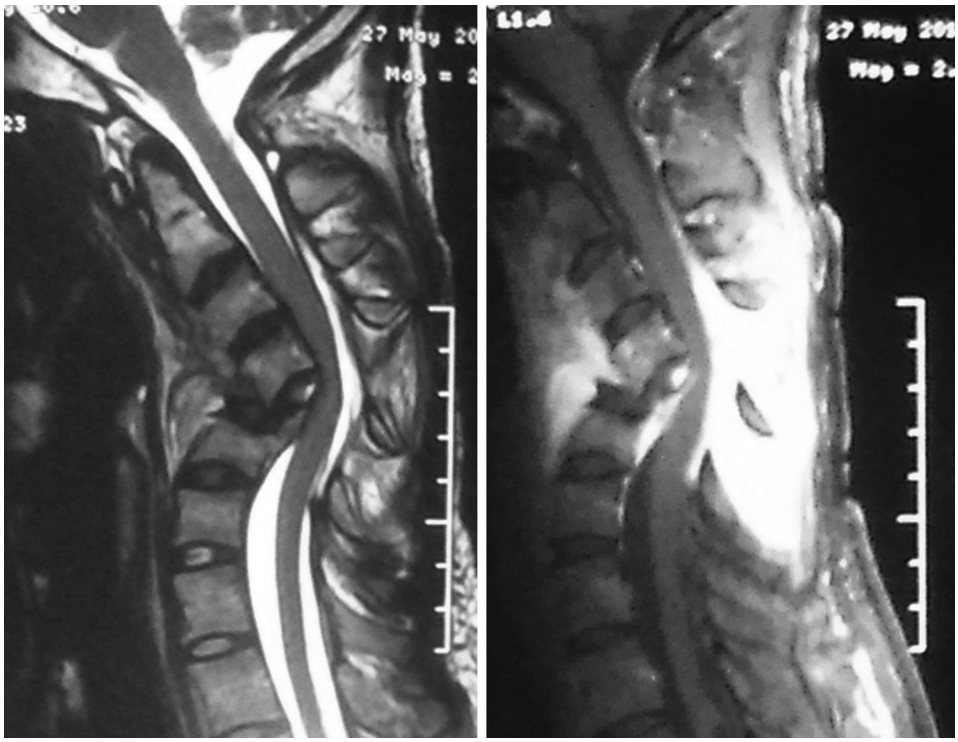

Fig. 2. (Left) Sagittal T2-weighted magnetic resonance imaging (MRI) revealed a spinal cord angulations with mild compression associated with thinness of paravertebral soft tissues. (Right) T1-weighted MRI with injection of gadolinium showed enhancement of paravertebral soft tissues and discale involvement with epidural abscess.

Fig. 3. Postsurgical radiography of cervical spine showed good reduction of cervical spine angulation.