

Unusual Presentation of Lower Cervical POTT'S Spine as Neck Abscess

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Abstract: Tuberculosis of the cervical spine is a rare clinical entity, with predilection for the dorsolumbar spine. Incidence being 0.03% of all the cases. The most common site involved is the vertebral body. We report an unusual case of lower cervical Pott's spine, who presented as infra auricular abscess.

Keywords: tuberculosis, pott's spine, cervical spine, infra auricular abscess.

I. Introduction

Tuberculosis of the cervical spine (Pott's disease) is uncommon, incidence being 0.03% of all the cases.⁽¹⁾ It usually has a predilection for the middle and lower thoracic spine. The most common site involved is the vertebral body. Neural arch, transverse process or spinous process is seen to be involved in 10 % of patients.⁽²⁾ We report an unusual case of lower cervical pott's spine, who presented as infra auricular abscess.

II. Patient Description

A 14 yr old, male child came to the OPD with complaints of swelling below the right lobe of the ear for 1 month. (fig.1) The swelling was insidious in onset and gradually progressive in nature. It was painless, with no aggravating and relieving factors. There was no history of fever, neck pain, restricted neck movements, weight loss or decreased appetite. His routine blood tests were within normal limits, apart from ESR, which was raised. Pus was aspirated from the swelling and sent for bacteriological cultures, which was negative. Patient was administered intravenous ceftriaxone along with oral anti inflammatory medication as empirical treatment, with no improvement. CECT Neck was done which showed vertebral destruction at level of lower cervical spine with adjacent pre and para vertebral soft tissue with right pre, post auricular and submandibular lymphadenopathy and pre and paravertebral abscess.(fig.2) MRI neck was also done, which demonstrated contiguous vertebral body destruction at level of lower cervical spine with adjacent pre and paravertebral soft tissue component with anterior subligamentous spread suggestive of Pott's spine.(fig.3)

Anti tubercular treatment was initiated with DOTS, category 1. Follow up period included check up every 2 months during which the patient was found to be asymptomatic.

III. Discussion

Cervical spine tuberculosis is a very rare entity, comprising of 2-3% of all the cases of TB spine and has the propensity of causing instability and neurological deficits.^(3,4) The most frequently involved region is the dorsolumbar spine.^(5,6) Pain is a dominant feature in tuberculosis of cervical spine, due to which there is restriction of neck movements. Pattern of cervical tuberculosis in adults and children differ. In adult cervical TB, disease is more localized and produces less pus. It usually presents with destructive lesion in single vertebral body and kyphosis is usually present. Cord compression is more common in adults.⁽⁷⁾

TB cervical spine in children is characterized by more diffuse involvement and formation of large abscesses. The abscess may be large enough to cause respiratory obstruction. Cervical TB vertebral osteomyelitis is very unusual. Symptoms may vary and include fever, weight loss, night sweats, neck pain and stiffness of neck. Patient may have neurological deficits like radiculopathy, myelopathy may have no deficits at all. CT scans and MRI are useful imaging modalities. Lysis and destruction of the vertebral body may be seen demonstrated on CT scan.⁽⁸⁾ MRI is also a highly sensitive tool in evaluating abnormalities of spinal tuberculosis. Gross abnormalities in patients with TB spine were demonstrated in 63% of subjects on MRI, who had normal plain radiographs⁽⁹⁾. As proposed by Mulhim et al, greater than 75% narrowing produces severe neurological impairment, while less than 50% narrowing produces mild to moderate neurological deficit.⁽¹⁰⁾

Anti tubercular therapy is the mainstay of treatment. Neck stabilization should be the initial treatment, specially when there is no neurological deficit. It has been seen that approximately 85% patients with Pott's paraplegia make excellent recoveries with anti tubercular medication alone. Conservative neck stabilization was done in our patient. Patient wore a Philadelphia cervical collar for 6 months and anti tubercular treatment was started and patient showed significant improvement.

It should be remembered that cervical lymphadenopathy involving pre, post auricular and submandibular region may be the presenting sign of cervical Pott's disease. Despite of this being a rare presentation, this entity should be considered to ensure appropriate diagnosis and treatment.

References

- [1]. Wurtz R, Quader Z, Simon D, et al. Cervical tuberculosis vertebral osteomyelitis: case report and discussion of the literature. Clin Infect Dis 1993;16(6): 806-8.
- [2]. Carey ME. Infections of the spine and spinal cord. In: Youmans JR, ed. Neurological Surgery. 4th edn, vol.5. Philadelphia: WB Saunders, 1996: 3270-304.
- [3]. Lukhele M. Tuberculosis of cervical spine. S Afr Med J 1996;86:553-6.
- [4]. Polland BA, El-Beheiry H. Pott's disease with unstable cervical spine, retropharyngeal cold abscess and progressive airway obstruction. Can J Anaesth 1999;46:772-5.
- [5]. Obisesan AA, Lagundoye SB, Lawson EA. Radiological features of tuberculosis of the spine in Ibandan, Nigeria. Afr J Med Sci 1977;6:55-67.
- [6]. Solagberu BA, Ayorinde RO. Tuberculosis of the spine in Ilorin, Nigeria. East Afr Med J 2001;78: 197-9
- [7]. LS Hsu, JC Leong. Tuberculosis of the lower cervical spine (C2-C7): J Bone Joint Surg Br . vol 66-B no.1-5, January 1984.
- [8]. Jain AK, Kumar S, Tuli SM. Tuberculosis of spine(C1-D4). Spinal Cord 1999;37:362-9.
- [9]. Gupta RK, Agarwal P, Rastagi H. Problems in distinguishing spinal tuberculosis from neoplasia on MRI. Neuroradiology 1996;38:97-104.
- [10]. Al-Mulhim FA, Ibrahim EM, El- Hassan AY, Moharram HM. Magnetic resonance imaging of tuberculous spondylitis. Spine 1995; 20:2287-92.

Legends:

- [11]. Fig 1: showing swelling over the right infra auricular region.
- [12]. Fig 2:CECT neck showing pre and paravertebral abscess (white arrow) with vertebral body destruction at level of lower cervical spine.

Fig 3: MRI cervical spine showing contiguous involvement of C6-D3 vertebral body with pre vertebral soft tissue (white arrow) with anterior subligamentous spread and vertebral body destruction.



Figure 1: showing swelling over the right infra auricular region.

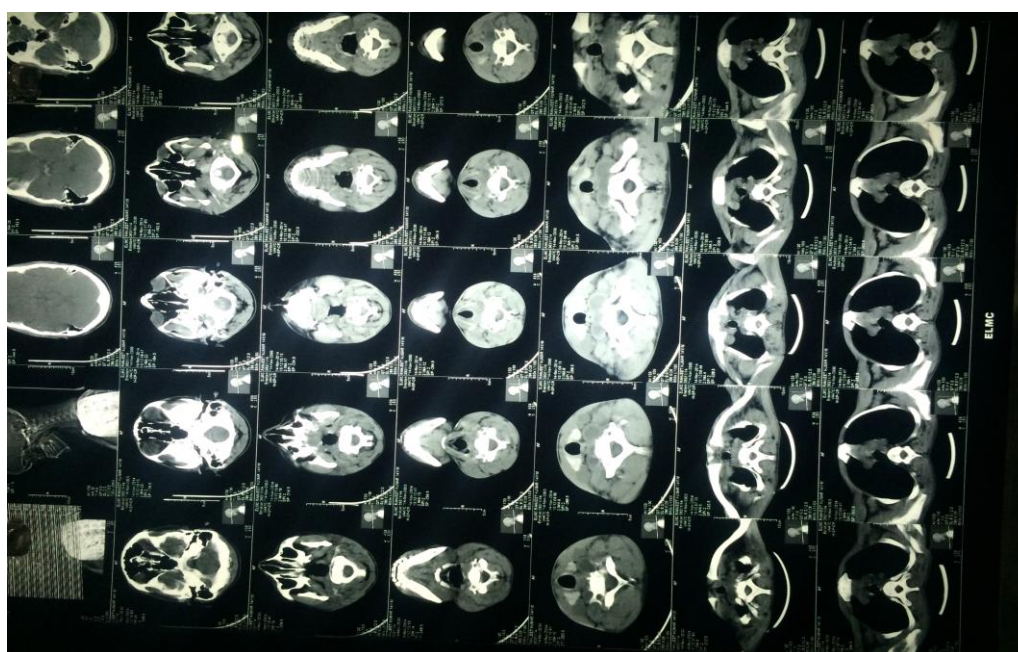


Fig 2: CECT neck showing pre and paravertebral abscess (white arrow) with vertebral body destruction at level of lower cervical spine.

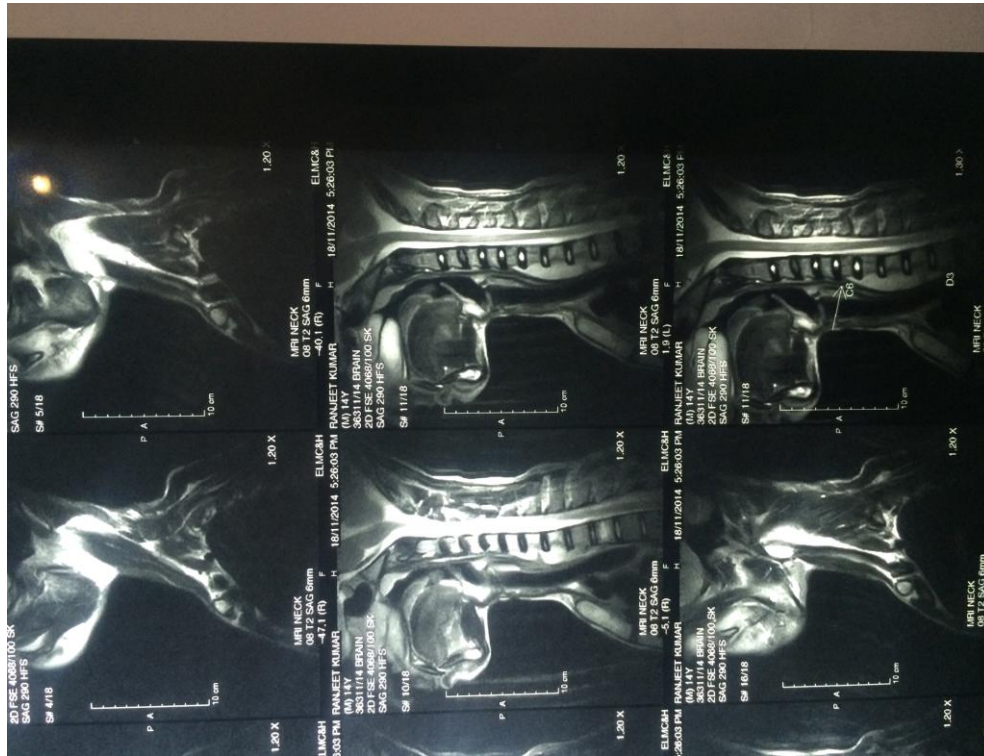


Fig 3: MRI cervical spine showing contiguous involvement of C6-D3 vertebral body with pre vertebral soft tissue (white arrow) with anterior subligamentous spread and vertebral body destruction.