

Medical Quiz: Image – Answers

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Answer keys

1. T1 and T2 weighted magnetic resonance scan image showing destruction of C8 and T1 vertebral bodies, reduction of space, swelling of spinal cord, edema. There was no signal change in spinal cord and paravertebral collection
2. Infectious spondylodiscitis most likely due to *Salmonella typhi*
3. Tubercular spondylodiscitis, Metastatic compressive myelopathy
4. Antibiotic according to sensitivity for 4 weeks
5.
 - a. When spinal root, cord or dura mater compression is seen on MRI
 - b. Spinal disability due to vertebral body destruction or severe deformity is present
 - c. If size of anterior abscess is greater than 2.5 cm
 - d. If medical treatment fails or pain persists despite conservative treatment

Literature Review: *Salmonella* Spondylodiscitis

Salmonella species can cause a wide range of human infections, from typhoid fever, gastrointestinal infections to septicemia or may remain as asymptomatic carrier. *Salmonella* spondylodiscitis is very rare. It usually occurs as a result of haematogenous spread during the unrecognized phases of bacteremia. It is usually common in immunocompromised patients but can happen in patients with normal immunity. *Salmonella*

commonly affects lumbar spine but can affect any part of spine¹.

Patients with *salmonella* spondylodiscitis can present with motor weakness of limbs with UMN signs, sensory impairment, and bowel-bladder disturbance with or without history of gastrointestinal infections. MRI of spine is the choice of investigation to find the site of lesion. To confirm it, histopathological evidence is mandatory². Sometimes *Salmonella Typhi* can be found in special culture medium when it is done appropriately. It is very important and may be sometimes difficult to differentiate spinal TB from *Salmonella* spondylodiscitis because both share similar clinical features in many aspects.

Antibiotic according to sensitivity is the mainstay of treatment in *Salmonella* spondylodiscitis and it should be given for 4 to 6 weeks. Sometimes surgical intervention may be needed to stabilize the spine. Usually prognosis of *Salmonella* spondylodiscitis is excellent if it is diagnosed early and treated before significant motor weakness³.

References

1. D'Souza CR, Hopp PG, Kilam S. Osteomyelitis of the spine due to *Salmonella*: case report, review of clinical aspects, pathogenesis and treatment. *Can J Surg* 1993; 36:311–14.
2. Miller M, Fogel G, Dunham W. *Salmonella* spondylitis. A review and report of two immunologically normal patients. *J Bone Joint Surg Am* 1988; 70:463–6.
3. Amritanand R, Venkatesh K, Sundararaj G. *Salmonella* spondylodiscitis in the immunocompetent: our experience with eleven patients. *Spine* 1976; 35:E1317–21.