

Pyogenic vertebral osteomyelitis treatment

Once suspected, comprehensive workup and initiation of management should be employed. In rare circumstances, surgical evacuation or deformity correction is indicated.

Surgical treatment is required in 10–20% of patients. Anterior decompression, debridement and fusion are generally recommended and instrumentation is acceptable after good surgical debridement with postoperative antibiotic cover. Continued antibiotic treatment should be considered postoperatively.

Emerging treatment solutions are being developed to help target osteomyelitis in a more effective manner ¹⁾.

Spine infection including vertebral osteomyelitis, discitis, paraspinal musculoskeletal infection, and spinal abscess refractory to medical management poses significant challenges to the treating physician. Surgical management is often required in patients suffering neurological deficits or spinal deformity with significant pain. To date, best practices have not been elucidated for the optimization of health outcomes and resource utilization in the setting of surgical intervention for spinal infection.

Further studies that control for selection bias in appropriately matched cohorts are necessary to determine the additive benefits of fusion in spinal infection management. ²⁾

A multidisciplinary approach involving both a spinal surgeon and an infectious disease specialist is necessary to better define the treatment strategy. Based on literature findings, a treatment algorithm for the diagnosis and management of primary spinal infections is proposed ³⁾.

In the context of evidence-based medicine and the rational use of **antibiotics**, it is clear that antibiotics should be preferred according to the culture **antibiogram** results in the treatment of infectious diseases ⁴⁾

Several methods of posterior surgical treatment for pyogenic spondylitis have been reported, there have been few reports regarding the efficacy of posterior only approach with short instrumentation including even inflamed segment.

By achieving favorable clinical and radiological results, short instrumentation and prolonged suction drainage with posterior only approach seemed to be an effective method in managing lumbar pyogenic spondylitis ⁵⁾.

Kim et al., performed a retrospective review of the medical records of patients with culture negative pyogenic spondylitis (CNPS) and **tuberculous spondylitis** (TS). They compared the characteristics of 71 patients with CNPS with those of 94 patients with TS.

Patients with TS had more previous histories of **tuberculosis** (9.9 vs 22.3 %, $p = 0.034$), simultaneous tuberculosis other than of the spine (0 vs 47.9 %, $p < 0.001$), and positive results in the interferon-gamma release assay (27.6 vs 79.2 %, $p < 0.001$). Fever (15.5 vs. 31.8 %, $p = 0.018$), psoas abscesses (15.5 vs 33.0 %, $p = 0.011$), and paravertebral abscesses (49.3 vs. 74.5 %, $p = 0.011$) were also more prevalent in TS than CNPS.

Different from or contrary to the previous comparisons between CPPS and TS, fever, psoas abscesses, and paravertebral abscesses are more common in patients with TS than in those with CNPS ⁶⁾.

Pyogenic [vertebral osteomyelitis](#) (PVO), also known as [intervertebral disc space infection](#).

It is a rare pathology that leads to significant diagnostic and therapeutic problems. The aim of a study was to investigate the efficacy of empirical antibiotic treatment in culture-negative PVO cases.

The records of patients with culture-negative PVO who were treated at infectious disease and neurosurgery outpatient clinics in the past four years were examined retrospectively. The control group comprised healthy subjects with similar age, gender, and body mass index but no pathology. In the statistical evaluation of the obtained data, the comparison of the groups was performed by analysis of variance. Statistical significance was accepted as 0.05.

There was no statistically significant difference in the white blood cell and erythrocyte sedimentation rate values between the spondylodiscitis group and the healthy subjects group when the blood parameters obtained before and after the treatment were examined (P 0.05). However, a statistical significance was observed in the results of the comparison for C-reactive protein (P 0.05).

In the context of evidence-based medicine and the rational use of antibiotics, it is clear that antibiotics should be preferred according to the culture antibiogram results in the treatment of infectious diseases ⁷⁾.

1)

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