Spondylodiscitis outcome

Since the advent of antibiotics, mortality has dropped from 25%–56%, to less than 5%.

Improvements in surgical and radiological techniques and the discovery of antimicrobial therapy have transformed the outlook for patients with this condition, but morbidity remains significant [1)]

Spondylodiscitis is a disease causing a profound impact on back pain, function and quality of life. The results suggest that chronic back pain is a debilitating problem, as it has an extensive influence on daily activities and social and psychological well-being, causing significant disability [2)].

Surgical site infection and medical complications are the main drivers of prolonged hospital stays and cost of care [3)].

One Randomized controlled trial suggest that 6 weeks of antibiotic treatment of pyogenic spondylodiscitis results in a similar outcome when compared to longer treatment duration. However, microorganism-specific studies suggest that at least 8 weeks of antibiotic is required for Staphylococcus aureus treatment and 8 weeks of Daptomycin for MRSA [4)].

If surgery is required, reported literature shows potential for significant pain reduction, improved neurologic function and a high number of patients returning to a normal functional/work status [5)].

The spondylodiscitis outcome is generally good, and antibiotics together with spinal bracing (immobilization) are adequate treatment in ≈ 75% of cases. Occasionally surgery is required.

It is associated with a one-year mortality of 20% and functional impairment among survivors leading to low quality of life [6) 7)].

Kehrer et al., identified all patients aged 18 years or older treated for infectious spondylodiscitis from January 1994 to May 2009 at hospitals in Funen County, Denmark.

Mortality rates among patients were compared with rates among a reference population using Kaplan-Meier plots and mortality rate ratios (MRRs). Short-term mortality was defined as deaths within first year after admission and long-term mortality was deaths thereafter. Factors associated with death were determined.

Among 298 identified patients, 61 (20%) died within the first year. Adjusted MRRs were 16.8 (95% confidence interval: 9.9-28.5) for 0 to 90 days; 4.2 (2.5-7.0) for 91 to 365 days; 2.2 (1.6-2.9) for 1 to 4

years; and 1.7 (1.2-2.5) for 5 to 14 years. Mortality rate ratios stratified on microbiological etiology were 8.8 (3.3-22.1) for 0 to 90 days; 1.4 (0.3-5.8) for 91 to 365 days; 3.2 (2.0-5.1) for 1 to 4 years; and 1.1 (0.5-2.4) for 5 to 14 years for unknown etiology and 24.0 (13.0-44.2) for 0 to 90 days; 6.0 (3.1-11.5) for 91 to 365 days; 1.9 (1.1-3.2) for 1 to 4 years; and 2.7 (1.5-4.7) for 5 to 14 years among Staphylococcus aureus infections. The main factors associated with short-term mortality were severe neurologic deficits at the time of admission, epidural abscess, and comorbidities. Long-term mortality seemed independent of microbiological etiology.

Mortality remained high the first year after admission and thereafter decreased with time to a level close to the reference population. Short-term mortality was especially related to infection with abscess formation and neurologic deficits and long-term mortality was related to alcohol dependency [8].

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