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Abstract: Although the incidence of pyogenic spinal infections is increasing, the ideal treatment of spondylodiscitis is still a controversially discussed issue. Furthermore, the proportion of multiresistant bacteria in spondylodiscitis is increasing, and treatment recommendations or reported results are missing for this especially difficult subset of patients. The aim of this study is to evaluate the surgical outcome and the postoperative antibacterial treatment regime. Retrospective case series. Patients treated for a spondylodiscitis from multiresistant bacteria at our department between 2006 and 2011. Data were gathered through review of patients’ case notes, relevant imaging, and electronic records. Magnetic resonance imaging of the whole spine including gadolinium (Gd)-enhanced T1 sequences and computed tomography scans of the affected regions were obtained in all cases. C-reactive protein (CRP) and complete blood cell count were analyzed in all cases using routine laboratory techniques. Neurologic deficits were classified according to the American Spinal Injury Association (ASIA) impairment scale. Twenty-five patients were identified (15 gram-positive and 10 gram-negative drug-multiresistant bacteria). The mean age at presentation was 66 years, and 14 patients were male (56%). All patients presented with pain, and a neurologic
deficit was present in 11 (44%) cases. An epidural abscess was found in 11 (44%) cases. At admission, CRP was elevated in all cases with a mean of 13±9.2 mg/dL. The main source of infection was previous spine surgery (36%). All patients in this series underwent surgical debridement of the infection and instrumentation of the spine. Postoperative intravenous antibiotics were administered for 19±8.6 days followed by 3±0.3 months of oral antibiotic therapy. Eradication of the infection was achieved ultimately in all surviving patients. Out of 11 patients with neurologic deficits, 4 had a full recovery, 4 improved incompletely, and 3 remained unchanged after surgery. Staged surgical immobilization and instrumentation and optimal debridement at the interdiscal space and spinal canal is a reliable approach to achieve complete healing of spinal infection with multiresistant bacteria. A period of intravenous antibiotic therapy of 2 to 3 weeks followed by a 3-month oral antibiotic therapy seems appropriate for most cases.