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Minimizing the surgical approach in patients with spondylitis

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Minimizing the surgical approach in treating patients with spinal infections by using local antibiotic treatment and avoiding a ventral approach reduces the anesthesia and surgical risks in patients with comorbidities. In this study we used calcium sulphate pellets (OsteoSet(R) T and the OsteoSet(R) Bone-void Filler kit(R)) as a delivery system for different antibiotics. Of a group of 32 patients with histologically and microbiologically diagnosed spondylitis, a cohort of 16 patients was treated by just a dorsal surgical approach in combination with a local antibiotic delivery system. Of these 16 patients, 14 patients showed a normalization of the infection parameters, no more bone loss in the spondylitic region, and a bony fusion after 6 to 9 months postoperatively. Two patients died from septic circumstances 4 and 6 weeks postoperatively. Two patients had to have one revision surgery because of a seroma; no other complications caused by the calcium sulphate pellets were observed. The use of calcium sulphate pellets as antibiotic delivery system allows a controlled local antibiotic therapy with an osteoconductive material in combination with a minimized surgical approach. Furthermore, calcium sulphate pellets have proven their reliable capability as bone void filler. Level of Evidence: Therapeutic study, Level IV-1 (case series). See the Guidelines for Authors for a complete description of levels of evidence.