Management of Periprosthetic Joint Infection Following Total Hip Arthroplasty: The One-Stage Exchange

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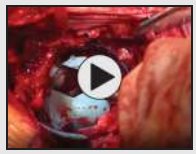

Abstract: Periprosthetic joint infection (PJI) remains a significant complication following total hip arthroplasty (THA), with infection rates ranging from 0.5% to 2%. Several strategies have been described for managing the infected THA, and although two-stage exchange remains the standard in North America, the optimal treatment strategy is controversial. One-stage (ie, single-stage) exchange is used predominantly in Europe. Several recent studies have compared one- and two-stage exchanges for chronic PJI when treatment options were determined through an algorithmic approach; one-stage exchange showed equivalent success rates, higher Harris hip scores (HHSs), lower complication rates, and greater patient satisfaction. At our institution, four female patients and one male patient have undergone one-stage exchange for PJI following THA. Mean time to revision was 27.2 days (range, 10 to 62 days). At the time of revision, the average patient age was 73.54 years (range, 64 to 89 years), and mean body mass index was 35.98 kg/m^2 (range, 24 to 45.1 kg/m^2). Four different infecting organisms were identified, including *Enterococcus faecalis*, *Pseudomonas aeruginosa*, *Staphylococcus aureus* (in two cases), and *S epidermidis*. All five patients received intravenous antibiotics for 6 weeks, and three patients were prescribed suppression antibiotics (range, 6 weeks to lifetime). The mean postoperative HHS was 88.83 (range, 74.8 to 99.85) at a mean follow-up of 459 days (range, 309 to 733 days). The mean postoperative erythrocyte sedimentation rate and C-reactive protein level were 50.25 mm/hr and 3.0 mg/L, respectively, at a mean follow-up of 92.5 days (range, 6 to 309 days). All five patients had retained their implants at a mean follow-up of 459 days. This video contains a case presentation, footage on the seven-part surgical method that has been successful at our institution, the previously mentioned outcomes on one-stage exchange performed at our institution, and a review of the related literature. Watch the video trailer: http://links.lww.com/JAAOS/A74.

Laminectomy and Instrumented Fusion in Lordosis for Multilevel Cervical Myelopathy

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Abstract: The goal of surgical management of multilevel cervical spondylotic myelopathy (CSM) is to decompress the spinal cord and restore a more physiologic sagittal alignment. Several surgical options for CSM exist, consisting of posterior and anterior procedures. Posterior decompression and stabilization in lordosis allow the spinal cord "back shift," resulting in indirect decompression of the anterior neural elements. This video shows posterior decompression and instrumented fusion in a 59-year-old man affected by CSM at C5-C7, who had numbness and weakness in the upper extremities. The surgical steps shown include lateral mass identification by anatomic landmarks and lateral mass screw fixation technique according to Roy-Camille, cervical decompression by C5-C7 laminectomy, and attempted fusion via bone graft positioning. A total of 40 patients affected by multilevel CSM underwent this technique and were followed both clinically and electrophysiologically. Thirty-six patients were clinically assessed at a mean follow-up of 5.7 years. European myelopathy scale (EMS) scores, modified Japanese Orthopaedic Association (mJOA) scores, and Neck Disability Index scores improved significantly ($P < 0.001$). Ninety percent of patients would undergo the same surgery again. There was no deterioration of the cervical alignment, posterior grafted bones had completely fused, and there were no instrumentation failures. The mean spinal cord back shift was 3.9 mm (range, 2.5 to 4.5 mm). EMS and mJOA recovery rates were significantly correlated with the postoperative posterior cord migration ($P < 0.05$). Posterior decompression and stabilization in lordosis is a valuable procedure for patients affected by multilevel CSM, leading to marked clinical improvement resulting from the spinal cord back shift. Postoperative lordotic alignment of the cervical spine is a key factor for successful treatment. Watch the video trailer: http://links.lww.com/JAAOS/A73.

Video trailers that accompany these abstracts are available on www.jaaos.org.