

TECHNIQUE AND TIMING OF TWO-STAGE EXCHANGE FOR INFECTION IN TKA.

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Infection in total knee arthroplasty is a devastating complication. The two-stage exchange procedure has evolved as an effective treatment option. The classification and alternatives to a two-stage procedure are presented. Current diagnosis and monitoring of infection in total knee arthroplasty with laboratory, aspiration, and imaging techniques are reviewed. The timing, technique, and results of a two-stage procedure are discussed. A knee aspiration with synovial fluid cell count and culture may be a useful adjunct. The use of antibiotic-impregnated cement spacers may be considered at the first-stage surgery. Spacers may be static or articulating, intramedullary dowels, preformed or constructed in the operating room, and provide single- or multiple-agent antibiotic (and antifungal) joint space delivery. Proper technique, antibiotic dosing, and indications with these devices will avoid complications between stages. The most common complications encountered with the use of spacers include dislocation/instability, implant extrusion, overstuffing of the patellofemoral and tibiofemoral joints, and implant or periprosthetic fracture. At the second stage of the procedure, surgical exposure, intraoperative frozen sections, assessment of bone and soft tissue defects, the integrity of the extensor mechanism, and implant selection are important factors to consider in the second-stage reimplantation revision total knee arthroplasty. LEVEL OF EVIDENCE: Level V, therapeutic study. See the Guidelines for Authors for a complete description of levels of evidence.

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