

Single-Stage Unicompartmental Knee Arthroplasty to Total Knee Arthroplasty Conversion for Periprosthetic Joint Infection

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The main reasons for revision of unicompartmental knee arthroplasty are loosening, wear, extension of osteoarthritis to another compartment, and infection. No studies have been performed on the management of infected unicompartmental knee arthroplasty, the incidence of which varies from 0.2% to 1%. Limited literature is available on the outcomes of unicompartmental knee arthroplasty periprosthetic joint infection eradication based on different treatment options.

This video describes unicompartmental knee arthroplasty periprosthetic infection managed via single-stage revision to total knee arthroplasty with intra-articular injection of methylene blue to guide débridement as part of a broader antibiofilm wound care strategy. Using this strategy for periprosthetic joint débridement may successfully eradicate all devitalized tissue and areas that harbor biofilm-forming bacteria, which would otherwise not be susceptible to standard antibiotic therapy.

This video provides a summary of the scarce literature published on periprosthetic joint infection eradication success; reviews treatment options for a specific case; and discusses surgical considerations, pearls and pitfalls, and the patient's postoperative course.