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QUESTION 2: Does intra-articular injection of the ankle with corticosteroids increase the risk of subsequent periprosthetic joint infection (PJI) following total ankle arthroplasty (TAA)? If so, how long after a prior intra-articular injection can TAA be safely performed?

RECOMMENDATION: Every intra-articular injection of the ankle is an invasive procedure associated with potential healthcare-associated infections, including periprosthetic joint infection (PJI) following TAA. Based on the limited current literature, the ideal timing for elective TAA after corticosteroid injection for the symptomatic native ankle joint is unknown. The consensus workgroup recommends that at least three months pass after corticosteroid injection and prior to performing TAA.

LEVEL OF EVIDENCE: Limited

DELEGATE VOTE: Agree: 92%, Disagree: 8%, Abstain: 0% (Super Majority, Strong Consensus)

RATIONALE

Intra-articular steroid injections may transiently relieve the pain of osteoarthritis of the ankle and are widely used for its treatment. At the same time, every injection is an invasive procedure and might be associated with health-care-associated infections, including PJI following TAA. Seror et al. noted that the risk of septic arthritis after an intra-articular steroid injection is 1 in 70,000 [1]. For native ankle joints, one study found a 3.9% infection risk when using intraoperative steroids versus a 1.8% infection risk when performing arthroscopy without steroids [2]. However, this study was not related to TAA, and many other studies in native ankle joint arthritis deny a relationship with steroid injections.

The available literature investigating the effect of intra-articular corticosteroid injections on postoperative PJI are all in hip and knee arthroplasty patients. Some studies find no relationship between corticosteroid injections and infection [3–6], while others find an increased risk of deep infection following intra-articular injection [7–11]. Studies that find a positive correlation also suggest that timing may be an important factor, and that injections more closely preceding surgery may lead to an even higher risk of infection.

Unfortunately, there are no published data in regards to the risk of PJI after steroid injection in the setting of TAA. The data from hip and knee arthroplasty may not be applicable to TAA, and further studies are warranted.

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