Risk Factors for Secondary Periprosthetic Joint Infection in Patients with Multiple Prosthetic Joints

Periprosthetic joint infection (PJI) can occur in multiple joints concurrently, but most patients present with PJI in a single joint. However, an optimal diagnostic protocol is lacking for patients with multiple prosthetic joints and PJI in one joint.

197 patients with two or more prostheses who suffered from PJI

- Prevalence of PJI in multiple joints
- Risk factors for secondary infections
- Clinical circumstances in patients with multiple PJI

Retrospective data collected on

- 37/197 developed PJI in another joint
- 11 had a synchronous PJI
- 26 had a metachronous PJI

Average time between the first and the second infection in the metachronous cases was 848 days

Risk factors for secondary PJI

- Female sex
- Rheumatoid arthritis
- Bacteremia at presentation
- Methicillin-resistant Staphylococcus aureus infections (MRSA)

In patients with multiple joint prostheses and PJI, medical practitioners should clinically examine all prosthetic joint(s) and consider aspirating these joints in high-risk patients.