

Severe Metallosis With Unexpected Simultaneous Infection Of An Unicompartimental Knee Arthroplasty: Case Report

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Introduction: Although rare, metallosis is possible after knee replacement surgery. Metallosis, also known as metal poisoning, can occur when metal implant pieces rub against each other and release tiny metal particles into the knee joint and bloodstream. This can happen when the plastic cushion separating the femoral and tibial components wears down from high usage. This usually takes a few years to occur, and revision surgery is required

Objectives: The aim of this study is to present a case report of an unusual complication occurred in a patient with unicompartimental knee replacement, consisting in severe metallosis with a simultaneous and unexpected *S. aureus* infection.

Methods: In 2003 was performed an unicompartimental right knee arthroplasty in a 72 yo female patient affected by a medial osteoarthritis. In March 2012 began a persistent pain and lameness; on x-rays images the partial loosening of implant was detected. Clinical aspect was clearly of a varus deformity and a revision surgery was planned. Intraoperative active suspect of a simultaneous bacterial pollution brought to a two-stage technique with the use of an antibiotic-loaded spacer, instead of single-stage total knee replacement. Microbiological testings confirmed the *S. aureus* coagulase-negative contamination.

Results: Parenteral specific antibiotics were performed for first 30 days, monitoring bloody inflammatory markers and clinical skin aspects for 60 days. A total knee arthroplasty was so performed in July 2012, with a 2-years radiological and clinical follow up.

Conclusions: The increase of revision joint surgery due to the complications (loosening, infections, dislocations, patient-related factors) are current issues for orthopaedic surgeons. Malpositioning or loosening of the components is possible. In addition, a metallosis may develop due to poor bone quality or inadequate fixation to the bone. More-severe destructive processes with greater preoperative bone loss are more likely to create this problem. In this case report Authors focus attention on the contemporaneity of 2 or more complications in the revision surgery.