

Mycobacterium tuberculosis THA

infection can be successfully treated with a two-stage revision.

Delayed total hip arthroplasty infection with *Mycobacterium tuberculosis* complex

• Hervé Poilvache, MD, Maïte Van Cauter, MD, Julien Coquay, MD, Hector Rodriguez-Villalobos, MD, PhD, Jean-Cyr Yombi, MD, Olivier Cornu, MD, PhD

INTRODUCTION

- Primary infections of prosthetic joints with *M. tuberculosis* are extremely rare events (20 cases described in the literature since 1990)
- Diagnosis requires cultures on specific medium and may be supported by PCR and histopathology
- Hypothesis should be raised in culture negative cases
- Treatment requires a specific anti-tuberculous chemotherapy

PATIENT

- 84 y/o female
- 2 years post primary THA complicated by acute *S. aureus* infection
- Closed wound, painful hip, loss of function, non febrile

WORK-UP

- Blood tests (CRP, blood count and leucocyte formula)
- Arthro-CT with joint aspiration
- Positive synovial fluid cultures and 16s RNA PCR

TREATMENT

- Two-stage revision with 6 weeks of anti-tuberculous chemotherapy between stages motivated by the previous *S. aureus* infection
- Per-operative femur fracture during reconstruction
- Anti-tuberculous chemotherapy continued for 9 months post-operatively
- No adverse events happened in the immediate post-operative period

FOLLOW-UP

- The patient has now been followed for 4 years
- No recurrence of pain or of other symptoms suggestive of an infection recurrence

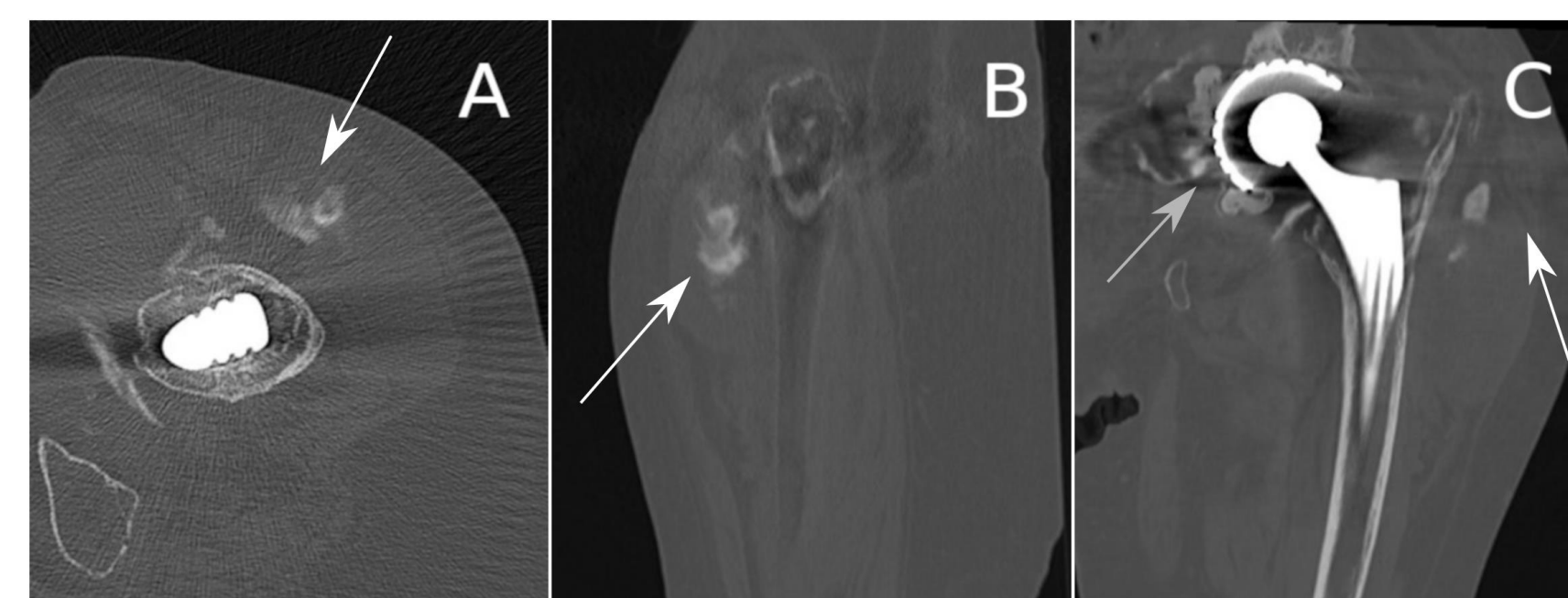
LITERATURE REVIEW

- Diagnosis relies on specific culture medium culture and histopathology
- Anti-tuberculous chemotherapy last 9 to 12 months
- No treatment failures reported in the literature despite a variety of surgical approaches including non-operative treatments

Initial laboratory results

- CRP: 17.0 mg/L (NI value < 10mg/l)
- WBC: 7.670 leucocytes/ml,
 - 5.540 neutrophils/ml
 - 1.050 lymphocytes/ml
- 16s RNA PCR positive for *M. tuberculosis*
- Lowenstein medium culture positive

Pre-operative CT



Post-operative X-rays



3 years post-operative X-rays

