Right knee Ureaplasma septic arthritis in an immunocompromised host, requiring right hip disarticulation for definitive source control, a case report

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INTRODUCTION:

Ureaplasma urealyticum, typically responsible for urogenital infections, may cause septic arthritis via haematogenous spread.

The authors report an immunocompromised patient with right knee chronic Ureaplasma septic arthritis with poor response to extensive antibiotics and numerous debridements over two years, eventually requiring an above-knee amputation (AKA) and subsequently right hip disarticulation for adequate source control.

REPORT:

A 26-year-old female with neuromyelitis optica on long-term ciclosporin presented to the emergency department for right calf pain. A Magnetic Resonance Imaging (MRI) reported nonspecific muscle oedema with no collections. Despite six weeks of antibiotics, she had persistent knee swelling and pain. While initial microbiological tests were unremarkable, synovial samples sent for 16s molecular test returned positive for *U. urealyticum*. She was started on extensive antibiotics, while her ciclosporin was switched to oral prednisolone, albeit with poor response. Her condition progressed to osteomyelitis and intra-articular abscess formation, requiring multiple right knee washouts, osteotomies of osteomyelitic bone and insertion of cement spacers. Intraoperative samples persistently isolated *U. urealyticum*. She underwent an AKA one year later for definitive source control. The stump wound demonstrated poor healing, developing a purulent sinus tracking from the acetabular fossa one month later, rendering a right hip disarticulation. The hip wound granulated slowly, with a split skin graft applied over the hip wound once suitable.

At her follow-up visit five months after discharge, her inflammatory markers remained low and she was coping well with outpatient rehabilitation.

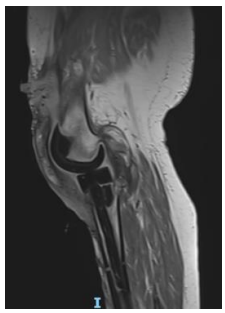

Figure 1: Lateral suprapatellar collection in communication with the joint space and femoral implant, with cutaneous sinus tract after a repeat Stage I revision right total knee replacement

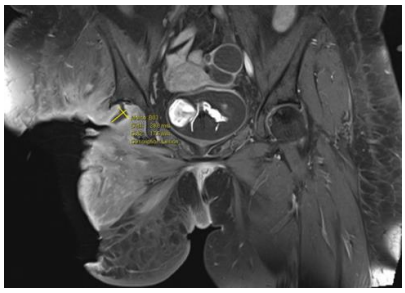

Figure 2: Remnant sinus tract extending into right acetabular fossa after hip disarticulation

CONCLUSION:

Routine cultures are not sensitive to Ureaplasma, rendering initial diagnosis challenging. In chronic septic arthritis, a low threshold for Ureaplasma-specific tests is advised, particularly in immunocompromised individuals. As Ureaplasma may demonstrate poor response to antibiotics, aggressive surgical management may be considered in early disease to prevent further progression.

REFERENCES:

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