

A RARE CASE OF MULTIPLE TWO-REVISION KNEE ARTHROPLASTY FAILURE FOLLOWING STREPTOCOCCUS GALLOLYTICUS INFECTION: A CASE REPORT

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INTRODUCTION:

Infection following two-stage revision total knee arthroplasty is a severe complication. Periprosthetic joint infection (PJI) from *Streptococcus gallolyticus* is very rare and is occasionally associated with colon carcinoma and infective endocarditis¹. In this report, the patient failed multiple two-stage revision surgeries with associated antibiotic coverage despite a multi-disciplinary approach. This case highlights the complexity of dealing with this rare pathogen in PJI.

CASE REPORT:

We present a 65 years old male who initially presented to us with PJI following two-stage revision TKA conducted at another unit. Following explantation, debridement and insertion of static cement spacer, tissue cultures confirmed deep infection with *Streptococcus gallolyticus*. Following antibiotic treatment (based on advice from Infectious disease physicians) and negative repeat aspirates after four months, and second-stage revision arthroplasty was performed with the patient receiving a rotating-hinge knee & trabecular metal. The patient recovered well, ambulated unaided and was happy for 18 months following this.

In October 2018, he presented with complaint of right knee swelling and pain. Blood investigation revealed elevated CRP & ESR. Initial washout & debridement confirmed presence of *S. gallolyticus*. The echocardiogram and colonoscopy were reported as normal. A last-ditch attempt at liner exchange 6 weeks ago was attempted but failed to eradicate the infection. Finally, he has had all metal removed however, confirmation of clearance is yet to be obtained.



Figure 1

DISCUSSION & CONCLUSION:

Streptococcus gallolyticus (previously classified as *Streptococcus bovis* biotype 1) is a rare pathogen in PJI and is sometimes associated with colon carcinoma and polyps. As this case demonstrates, despite appropriate measures, this organism may prove extremely difficult to eradicate despite the use of all appropriate guidelines and surgical techniques. As far as we are aware, this is the first case in the literature which specifically identifies *Streptococcus gallolyticus* as a cause for multiple TKA revision failure.

REFERENCES:

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