

Salmonella Septic Arthritis Of The Knee

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INTRODUCTION:

Septic arthritis of the knee is a known complication of intra-articular knee injection. Septic arthritis caused by non-typhoidal salmonella (NTS) is not common but has been reported in immunocompromised patients¹. This case reports an occurrence of NTS infection of the knee in a healthy patient.

REPORT:

A 48 years-old gentleman presented to the Emergency Department with complaint of left knee pain for 1-day duration. He had history of intra-articular knee injection done at a general practitioner 2 weeks prior to presentation. On examination, patient was not septic looking, with a warm, swollen left knee and pseudo-paralysis. He denied any gastrointestinal symptoms. Infective parameters were raised with total white count of $24.8 \times 10^9/L$ (neutrophils predominant) and C-reactive protein of 334 mg/L. He was started on empirical intravenous antibiotic and underwent knee arthrotomy washout of the left knee within 24 hours of admission. Intraoperative findings were inflamed synovium with healthy joint cartilages and no pus discharge. After 5 days of admission, patient developed spiking of temperature in ward. His knee swelling worsened and he was planned for another arthrotomy washout. Interestingly, his synovium tissue for culture from the initial washout revealed non-typhoidal salmonella. He was immediately started on ciprofloxacin as per sensitivity report. Even though his infective parameters were improving thereafter, his condition was complicated with stiffness of the left knee. Patient was able to regain full range of motion of his left knee after undergoing a manipulation under anaesthesia.

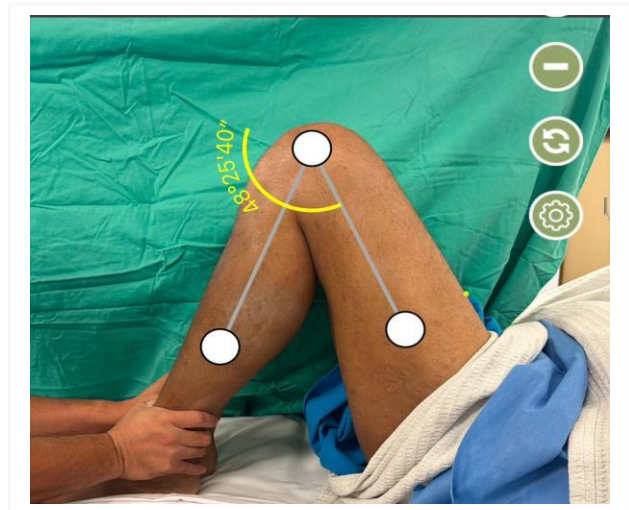


Figure 1: ROM of left knee post-MUA

CONCLUSION:

NTS can spread hematogenously to virtually any anatomical site and cause local infection. Only 0.27% of Salmonella bacteraemia leads to Salmonella septic arthritis¹. It is also reported in cases following trauma or in prosthetic joints. Proper sterile technique of intra-articular injection is paramount to ensure the risk of joint infection is kept to a minimum.

REFERENCES:

1. Chang et al, Cureus 13 (12), Salmonella Septic Arthritis and Bacteremia in a Patient with Poorly Controlled Diabetes. December 2021, DOI:10.7759/cureus.20465.