

# SALMONELLA SEPTIC ARTHRITIS OF HIP IN ADULT: A CASE REPORT

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## INTRODUCTION:

Up to 70% of all septic arthritis cases are caused by gram positive *Staphylococcus aureus*. Gram negative pathogens such as *Salmonella* are rarely found in septic arthritis, however it is commonly associated in hosts who are immunocompromised or with chronic medical conditions. We present a case of septic arthritis caused by *Salmonella* in an adult with newly diagnosed Type II diabetes.

## REPORT:

A 37 years old gentleman presented to us with a 5day history of high grade fever and left hip pain with tenderness upon weight bearing. He appeared to be septic looking with the hip kept in 40° flexion, externally rotated with slight abduction. He was diagnosed with Type II diabetes during the admission, with his venous fasting blood sugar of 14.7mmol/L and HbA1c of 6.7%. Blood investigations showed mild leukocytosis (11.8 x 10<sup>9</sup> /L), raised C-reactive protein (CRP) 291.7 mg/dL and erythrocyte sedimentation rate of 52 mm/hr.

We proceeded with arthrotomy and washout of the hip joint based on clinical evidence. Intra-operatively noted there was minimal amount of pus and debris with sloughy synovial tissue which was sent for culture and sensitivity. There was also destruction of the subchondral bone identified during the washout.

Swab and tissue culture was reported as *Salmonella* spp. which was susceptible to ceftriaxone and ampicillin while the blood culture had no growth. He was started on intravenous ceftriaxone and further history on predisposing factors for *Salmonella* infection was obtained. There were no symptoms of gastroenteritis prior or during the febrile episodes.

Stool culture had no growth while the rheumatoid factor, ANA and dsDNA was negative and peripheral blood film screening showed no traces of sickle cell disease.

With 3weeks of intravenous ceftriaxone and a re-arthrotomy and washout, there was no significance decrease in the CRP, but he was afebrile since the antibiotics was started hence the antibiotics were changed to intravenous ampicillin which improved the symptoms and showed a decrease of CRP to 32.4mg/dL after 6weeks.



Radiograph of septic arthritis left hip with *Salmonella* infection

## CONCLUSION:

Septic arthritis of hip caused by *Salmonella* is very rare among healthy adult, any other predisposing factors and autoimmune disease leading to *Salmonella* infection need to be ruled out.

Obtaining tissue specimens and swabs for culture is very important in identifying the organism. The gold standard of septic arthritis treatment still remains as surgical drainage and administration of antibiotics. Failure to initiate appropriate treatment within the first 24 to 48 hours of onset can cause subchondral bone loss and permanent joint dysfunction.

## REFERENCES:

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2. Shun Chiu, Cheng-Hsun Chiu Septic arthritis of the hip caused by salmonella typhi *Annal of tropical paediatrics* 2011