

## Salmonella Surprise: Unmasking Osteomyelitis In Unexpected Host

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### INTRODUCTION:

Salmonella-induced osteomyelitis (OM) is extremely rare, predominantly in individuals without sickle cell disease. We present a case of salmonella OM over the right medial malleolus in a 10 months old girl.

### REPORT:

10 months baby girl presented with 2 weeks history of avoiding using her right leg and right ankle swelling for 2 days .X-ray revealed a distal tibia lytic change and ultrasound confirmed osteomyelitis. Surgery showed OM changes and no joint involvement. Tissue cultures positive for ampicillin-sensitive Salmonella (non-typhoidal). She received 6 weeks of intravenous antibiotics.

### DISCUSSION:

Affecting only about 0.45% of children, Salmonella osteomyelitis is an uncommon infection in healthy individuals involving long bones like femur and humerus. Some patients with this condition might not have had diarrhea previously. This can take months or even years before symptoms appear. During acute phase of OM, diagnosis is often difficult as plain x-ray shows OM changes after 10-14 days of symptoms onset. MRI is the imaging of choice in diagnosing early OM and ultrasound is an adjunct method in centers where there is no MRI available. Infants (especially below 18 months old) with OM, adjacent joint exploration is needed because they are more likely to develop septic arthritis due the metaphyseal vessel loop and epiphyseal vessel are directly connected via growth plate.

The gold standard of treatment for salmonella OM is a combination of surgical debridement and long term targeted antibiotics. 4 weeks of antibiotic is sufficient for non typhoidal osteomyelitis (Lee WS, 2005)



**Figure 1:** X-ray of right ankle showing lucency over medial malleolus

### CONCLUSION:

It may take up months to years before the symptoms appear. We prefer MRI as modality of imaging to detect early OM. Prompt surgery and targeted long duration of antibiotic after culture is available are recommended. Adjacent joint exploration needs to be considered if there is any suspicion for joint involvement.

### REFERENCES:

1. Saturveithan C et al, Salmonella Osteomyelitis in a one year old Child without Sickle Cell Disease: A Case Report. Malays Orthop J. 2014