SALMONELLA ANKLE SEPTIC ARTHRITIS

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INTRODUCTION:

Salmonella species is a less common etiologic factor for septic arthritis compared with other gram-negative bacteria. We would like to present a septic arthritis case with Salmonella species also discuss the predisposing factors and treatment.

REPORT:

56 year-old lady with underlying hypertension, gout and history of over the counter steroids for bilateral knee pain, presented with complaint of right ankle pain and inability to bear weight on right side for 3 days but denied fever. Right ankle was swollen, not warm, active plantar flexion $0\text{-}10^0$ and minimal active dorsiflexion. Blood investigation showed total white count (TWC) 11.4, erythrocyte sedimentation rate (ESR):65mm/hr and C-reactive protein (CRP): 20ng/mL. Xray: increased soft tissue shadow with no bony erosion. Ankle joint aspiration done revealed purulent synovial fluid and proceeded with emergent arthrotomy washout. Subsequently patient went for two more arthrotomy washout. Culture and sensitivity of synovial fluid yielded Salmonella spp sensitive to Ceftriaxone. She was treated with total 6 weeks of appropriate antibiotics with evidence of reduction of immunological markers.

Figure1: Ankle x-ray

Figure 2: Right ankle swollen in plantigrade

DISCUSSIONS:

Most patients with Salmonella septic arthritis have either a predisposing disease, such as sickle cell anaemia or systemic lupus erythematosus, or a predisposing condition such as prosthetic joint or avascular necrosis.[2]

The gold standard of treatment is joint debridement and antibiotic therapy according to the culture results. Wirtz et al. reported better functional results for cases treated with surgery before the fifth day of symptoms.[1] Chronic immunosuppression due to prolonged steroid therapy leads to depressed humoral immune response and this leads to insignificant widal titers. Most subtypes of Salmonella, are sensitive to fluoroquinolones and intravenous third-generation cephalosporins.[2]

CONCLUSION:

We emphasize that joint infections can be caused by atypical bacteria like salmonella species in immune-compromised individuals.

REFERENCES:

1. Uygur et al Salmonella enteridis Septic Arthritis; 2013.
2. Dineen PF et al; Foot Ankle Surg 2011; 17:e23-4.
3. Yadav R et al; (2014); Journal Case Rep Stud 2(6).