SOMETHING FISHY ; A CASE REPORT ON SALMONELLA OSTEOMYELITIS

¹Joshua LEK, ¹Melissa MN, ¹Rashdeen Fazwi MS ORTHO (UKM) ¹Department of Orthopaedic, Hospital Selayang, Selangor, Malaysia

INTRODUCTION:

Patients with focal non-typhoidal Salmonella (NTS) infection are commonly associated with haemoglobinopathies such as sickle cell disease or thalassemia. NTS species only rarely cause extra-intestinal focal infections in immunocompromised patients.

REPORT:

We report a case of left forearm abscess with intramuscular extension and proximal radius osteomyelitis. A 13 year old boy with underlying Sickle Cell Disease (SCD) and Thalassemia carrier, presented with acute onset left forearm pain and swelling, associated with fever. He had no history of food poisoning or recent travel to endemic areas.



Figure 1 : Left forearm swelling (preoperatively) and sclerotic radius (intraoperatively).



Figure 2 : Periosteal reaction and cortical erosion of the left radius.

Intraoperatively, pus collection breached volar compartment with sclerotic bone over proximal third of radius. Debridement and bone curettage was successful. *Salmonella species (non typhi)* was identified from bone and tissue samples. Intravenous ceftriaxone was administered for 1 week followed by oral bactrim (trimethoprim/sulfamethoxazole) for 6 weeks.

DISCUSSION:

While Salmonella Osteomyelitis are rare, it is typically a diaphyseal infection of long bones of which more than 50% of cases are associated with SCD^[1]. Nearly 49% of sickle cell patients are carriers of a deletional thalassemia^[2]. Thalassemia associated cases shows 1.68 fold increased risk of NTS infection^[3]. The gold standard method for confirming thyphoid fever is isolation of *S.typhi* from bone marrow. In conclusion , early identification and use of appropriate antibiotics plays an important role for successful management.

REFERENCES:

1. Yolande, D., Tufong, K., Jules, T., Mayah, A., Charlotte, E., Njinkui, D., Enyama, D., Selangai, H. and Siysi, V. (2021) Osteomyelitis in Children with Sickle Cell Disease: A Challenging Diagnosis: Case Report from Cameroon. Open Journal of Pediatrics, 11, 208-214. doi: 10.4236/ojped.2021.112020.

2. Mikobi, Tite Minga, et al. "Association between sickle cell anemia and alpha thalassemia reveals a high prevalence of the $\alpha 3$. 7 triplication in congolese patients than in worldwide series." Journal of Clinical Laboratory Analysis 32.1 (2018): e22186.

3. Sheen, Jiunn-Ming, et al. "Increased nontyphoidal Salmonella hospitalizations in transfusion-naïve thalassemia children: a nationwide population-based cohort study." Pediatric research 91.7 (2022): 1858-1863.