CHALLENGES IN DIAGNOSING AND MANAGING STERNOCLAVICULAR JOINT(SCJ) INFECTION : A CASE SERIES

Muhammad Hafizuddin Hanafiah[1], Nur Akmal Ismail Mansor[1], Mohamad Razip Sirat[1]

[1]Hospital Pakar Sultanah Fatimah

Introduction: Sternoclavicular joint (SCJ) infection is very rare, account for 1% of septic arthritis in general population. Early diagnosis is difficult because of its insidious onset and lack of radiological reference standard. Previous reports showed often prolonged diagnostic pathway, which implies risk for potentially serious complications such as abscess formation, septic arthritis, osteomyelitis, and empyema. The aims of the present study are to describe the challenges in diagnosing infection in the SCJ, propose a radiological approach and its management to prevent delay in treatment and to enhance awareness of this unusual infection.

Discussion: From 2019-2020, 3 patients with sternoclavicular joint(SCJ) infection were managed at our institution. Clinical, biochemical, radiological, and microbiological findings were studied retrospectively and re-evaluated. Associated risk factors and comorbidities is uncertain in this kind of infection as its can occurs to healthy adults as one of our patient. Imaging plays an adjunctive role in making diagnosis, all cases undergo ultrasound imaging despite normal plain radiograph findings revealed collections in SCJ to establish the diagnosis however its already late. CT findings demonstrated rim enhancing collection with adjacent bony erosion suggestive of osteomyelitis in all patients. Management of sternoclavicular joint(SCJ) infection of every case were varies according to clinical basis, blood parameters, cultures & radiological findings include type of antibiotics to surgical debridement. Outcomes was remarkable in all patients with complete recovery.

Conclusion: In sternoclavicular joint(SCJ) infection, the diagnosis was frequently delayed, partly due to a multimodality diagnostic approach. This study enlighten use of ultrasound as the initial diagnostic imaging method. If necessary, CT should be performed to delineate possible spread to intrathoracic structures. In conclusion, early institution of appropriate antibiotics is important, and surgical interventions are often may required to eradicate the infection. Awareness of infection in the SC region is important to avoid diagnostic and management delay, thus reduce complication.