METHICILLIN-RESISTANT COAGULASE-NEGATIVE STAPHYLOCOCCUS IN CHRONIC HIP PROSTHETIC JOINT INFECTION

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INTRODUCTION:

Prosthetic joint infection (PJI) is a devastating complication after total hip arthroplasty. In chronic PJI, the incidence of *Methicillin-resistance coagulase-negative staphylococci* (MRCONS) has been increasing. The difficulty lies in obtaining positive culture in such low virulence bacteria that will be an obstacle for optimum treatment. We are reporting a grueling 10 years experienced in managing a hip arthroplasty PJI with MRCONS.

REPORT:

55-year-old male had a bipolar hemiarthroplasty done in August 2000. Eleven years after the index surgery, he presented with sinus discharged and was diagnosed as PJI. A 2-stage revision was performed. No bacterial growth yielded from the cultures taken. He completed a course of antibiotic, and the post-operative period was uneventful. However, he defaulted follow-up. Regrettably, he returned in 2018 with sinus discharged. Apart from the recurrent PJI, the proximal femur showed chronic osteomyelitis (Figure1). He underwent implant removal, resection of the proximal femur and insertion of antibiotic-loaded cement spacer. Multiple samples were sent for culture at different occasions either from joint aspiration or during repeated debridement. However, the result were still negative. Alpha-defensin test performed was also negative. Eventually, he underwent right proximal femur endoprosthesis in 2021 (Figure2). Intra-operative specimens taken during the surgery were reported as MRCONS. Due to the positive culture, he was started on a course of linezolid as per culture sensitivity for 3 months. Currently after 2 years of follow-up, the patient remained free from infection.

Figure 1: Right femur radiographs shows a post-THR with osteomyelitis changes over proximal femur.

Figure 2: Right femur radiograph post-operation showed stable fixation with no loosening.

CONCLUSION:

The challenge in treating MRCONS PJI is due its low virulence nature that avoid detection. Therefore, index of suspicion of MRCONS should be increased especially in treating a negative culture PJI so that appropriate antibiotic can be given to eradicate the infection.

REFERENCES:

1. Mohamad M, Deabate L, et al. Prosthetic Joint Infections Due to Coagulase-Negative Staphylococci. Int J Infect. 2015;3(1):1–8.