

RETAINING A STABLE IMPLANT IN OSTEOSYNTHESIS-ASSOCIATED INFECTION - A CASE REPORT

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Introduction: Osteosynthesis-associated infection (OAI) is defined as infection occurring after surgical fixation of fractures with internally placed implants. It is an orthopedic dilemma in deciding whether to remove the implant or retain it until union has been achieved

Discussion: A 38 years old gentleman had alleged motor vehicle accident and sustained Closed fracture right tibial plateau. Open reduction and proximal tibial locking plate were done. At 2 weeks post-surgery, patient presented with warm erythematous leg and pus discharge from surgical site. Empirical antibiotic was started and wound debridement over right leg was done. The wound was explored and debrided. Intraoperatively, 50cc pus was evacuated, unhealthy muscle and tissue debrided. No loosening of implant. Patient underwent multiple wound debridement. At 2 weeks post debridement, wound was healing well however the proximal aspect was not able to be close immediately. This left the proximal part of the implant to be exposed. Patient was then put on VAC dressing for 3 weeks until healthy granulation tissue closes the implant. Meanwhile antibiotic was change according to culture and sensitivity. At 6 weeks post first debridement, the wound was completely closed and patient was discharge home well. At 3 months post operatively, patient wound and fracture healed uneventfully and patient able to ambulate independently.

Conclusion: Osteosynthesis-associated infection are challenging to manage due to myriad of factors in devising treatment strategy. As literature does not suggest any guidelines to dictate whether implant should be removed or retained in the presence of an acute infection, the management requires flexibility in the treatment plan, close monitoring and examination while trying to avoid a poor outcome such as infected nonunion.