

DAIR with medial gastrocnemius pedicled flap for treating wound complication after total knee arthroplasty

DAIR and Orthoplastic Reconstruction for Acute Periprosthetic Knee Infection With Severe Soft-Tissue Compromise

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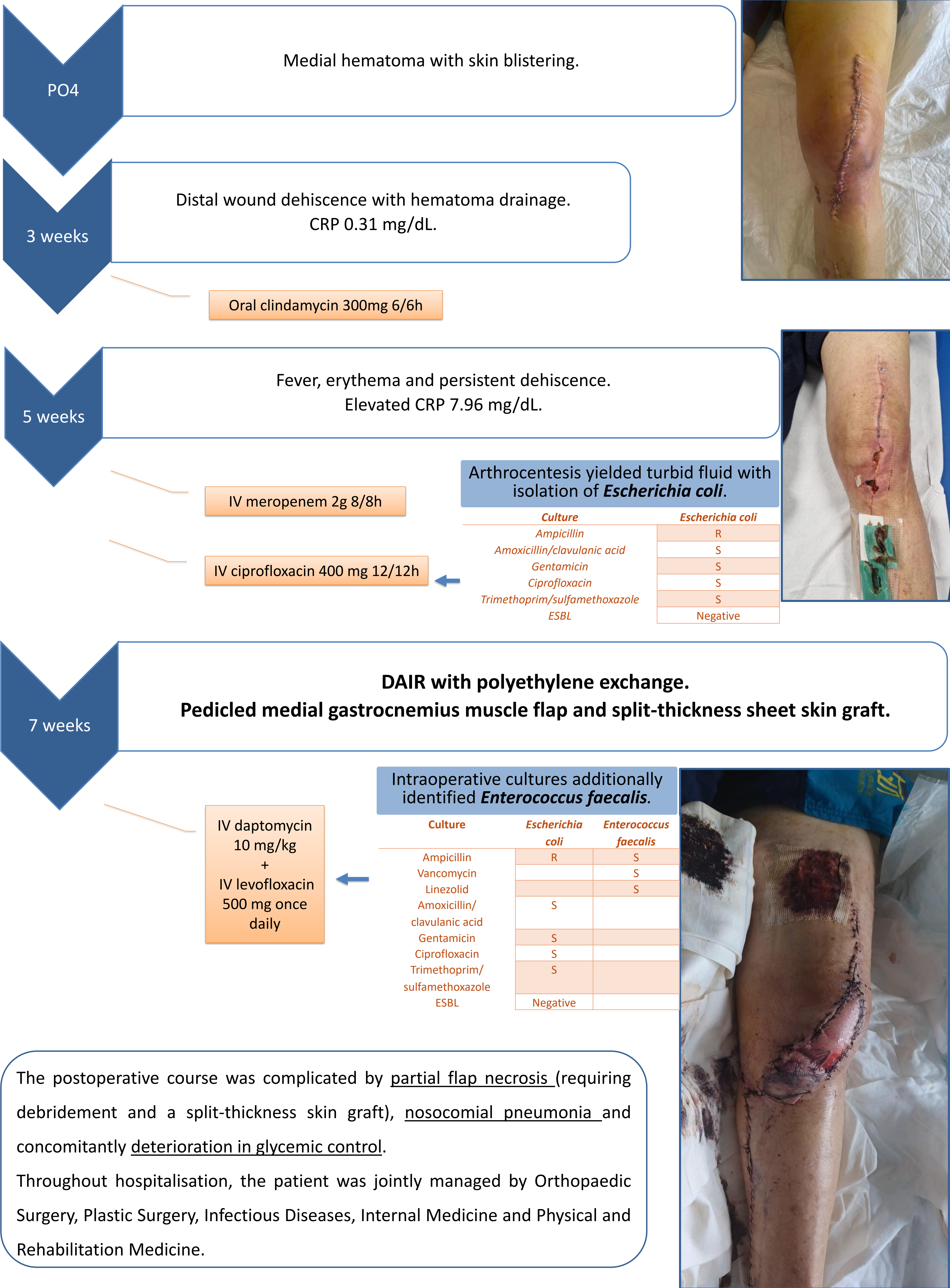
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Introduction

Early wound complications after total knee arthroplasty (TKA) are a known risk factor for periprosthetic joint infection (PJI) and stand as a suggestive criterion in the EBJIS definition of PJI. We report a polymicrobial PJI following early soft tissue compromise, highlighting management challenges and the need for multidisciplinary care.

Case report

71-year-old male, former smoker, with diabetes type II and penicillin allergy undergoing primary cemented, robot-assisted TKA for osteoarthritis, with clindamycin administered for perioperative antibiotic prophylaxis.



Following **6 weeks** of inpatient multidisciplinary management, including **intravenous antibiotic therapy** with full coverage of the isolated pathogens, the patient was **discharged** on **oral levofloxacin 500 mg every 12 hours** for an additional **6 weeks**.

Results

- Complete wound healing maintained since 2 months postoperatively with no signs of infection
- Normalized inflammatory markers
- Knee range of motion of 0–90°
- Independent ambulation with continued outpatient physiotherapy after discharge

6 months



Take-home message

- Early wound complications after TKA may herald subsequent PJI, including polymicrobial infection.
- Host factors, particularly glycaemic control, and the condition of the soft-tissue envelope are critical and often require a **multidisciplinary approach** involving Orthopaedics, Infectious Diseases and Plastic Surgery.
- In this case, even 7 weeks after the index TKA, **DAIR combined with targeted antimicrobial therapy and soft-tissue reconstruction** achieved infection control and an acceptable functional outcome, without the morbidity associated with revision surgery.

References

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