The Dark Side of a New Hip: Infection After Arthroplasty

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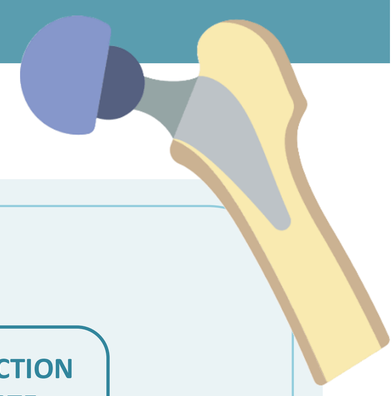


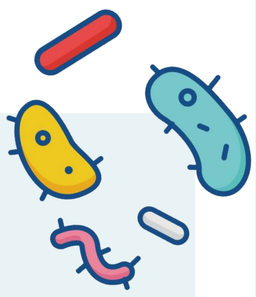
Introduction

Total hip arthroplasty (THA) is a highly effective procedure for advanced hip arthritis, but its increasing use has been accompanied by a rise in prosthetic joint infection (PJI)[1,2]. PJI is a severe condition associated with significant morbidity, mortality, and healthcare burden[3,4].

Aim

Characterize epidemiology, diagnostic features, microbiology, and management of PJI after THA in a peripheral hospital.

Methods



Study Design

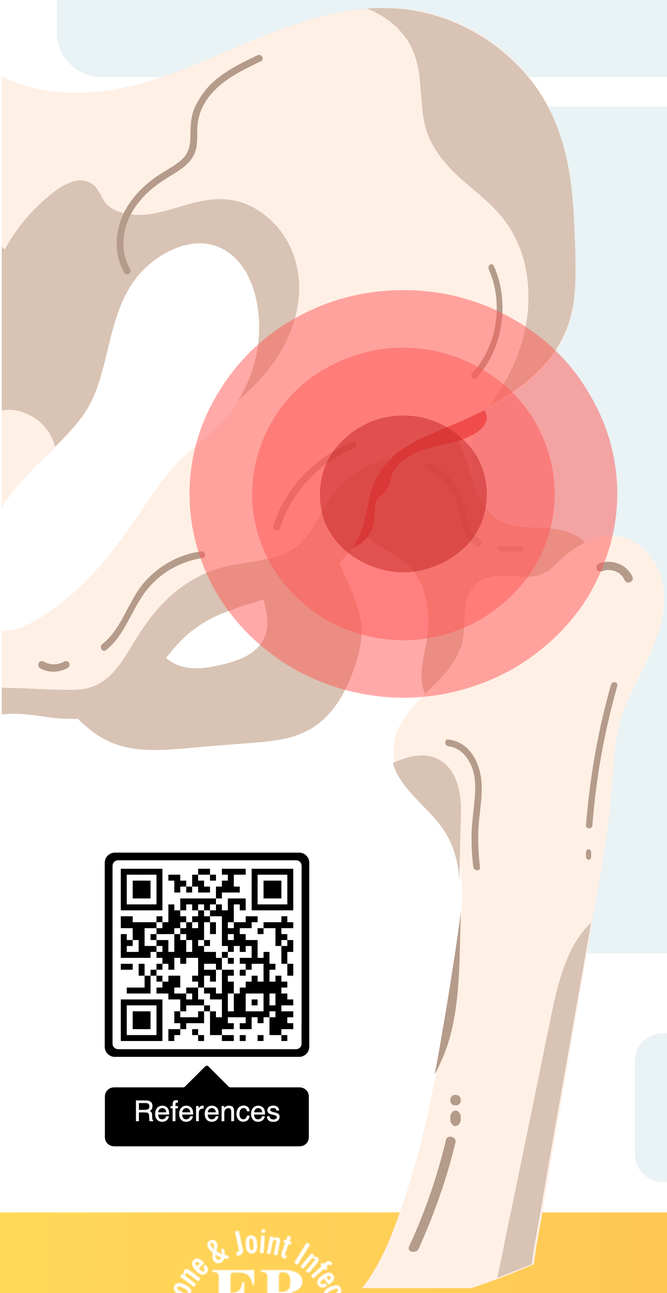
Retrospective analysis of prospectively collected data.

Study Population

Patients diagnosed with hip PJI between 2024 and 2025.

PJI Definition

PJI was classified according to EBJIS criteria[5].



References

Results

PJI INCIDENCE

821 THAs performed

56 PJIs identified

44 (79%) PJIs confirmed according to EBJIS criteria

INFECTION RATE 1.7%

Early-onset PJI (<3 months postoperatively) N=18

DEMOGRAPHICS & COMORBILITIES

65% Male **35%** Female

Age Median (range) **76** years (43-94)

64% functionally independent

5 Mean number of comorbidities

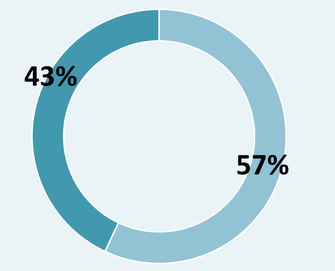
Hypertension (71%)

Diabetes *mellitus* (43%)

PRESENTING SYMPTOMS

Pain	Functional limitation	Erythema	Fistulisation	Fever
71%	59%	43%	25%	16%

TYPE OF THA BEFORE PJI



PREOPERATIVE LAB ABNORMALITIES

57% Anaemia

25% Hyperglycaemia

Leucocytosis

Elevated C-reactive protein

Elevated sedimentation rate

MICROBIOLOGY

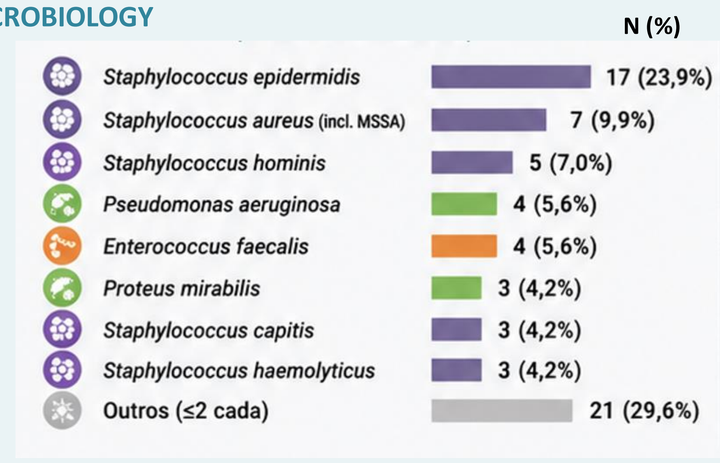
7 Intraoperative samples (Median) Range 2-13

Staphylococcus spp 55%

34% showed polymicrobial growth

5 cases of fungal PJI (*Candida* spp)

1 case of culture negative PJI



MANAGEMENT

64% Debridement, antibiotics and implant retention (DAIR)

Implant retention and suppressive antibiotics in 2 patients

61% Antibiotic-loaded cement (Vancomycin + Gentamycin)

29% Rifampicin as anti-biofilm therapy

Empiric therapy 82% Piperacillin/Tazobactam + Vancomycin **Mean duration: 9 days** → Therapy directed by Microbiology

IV antibiotic Median of 2 weeks → Followed by oral antibiotic course

Total antibiotic duration 6 or 12 weeks

OUTCOMES

Infection recurrence	Reinfection	Reintervention required	1-year follow-up in **88%** of cases	30-day mortality	1-year mortality
7%	**5%**	**9** patients		**7%**	**5%**

Conclusions

PJI after THA remains a complex, high-burden complication. Our findings highlight the predominance of chronic, late-onset PJI and the central role of DAIR, underscoring the need for tailored surgical and antimicrobial strategies.