EP404

JS-BACH Classification as a Predictor of Outcomes in Prosthetic Joint Infections: A Retrospective Validation Study

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INTRODUCTION & AIM

The Challenge of PJI

Prosthetic joint infections are major orthopedic complications associated with high morbidity and complex management requirements.

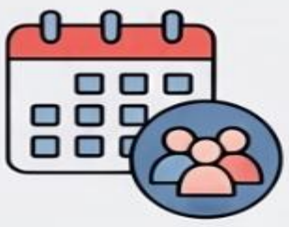
The JS-BACH Tool

A classification system designed to provide a comprehensive evaluation of infection complexity by integrating clinical and paraclinical parameters.

Research Aim

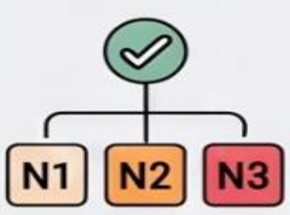
To assess the prognostic value of the JS-BACH classification in predicting clinical outcomes for patients with PJI.

MATERIALS & METHODS



Study Design

Retrospective analytical study of 96 patients managed for PJI between January 2022 and June 2025 at the Mohamed Kassab Institute of Orthopedics.



Classification Levels

Patients categorized into three tiers: N1 (uncomplicated), N2 (complex), and N3 (limited therapeutic options).

Defining Unfavorable Outcomes

Outcomes tracked for 6 months and defined as treatment failure, relapse, reinfection, or infection-related death.

CLINICAL & MICROBIOLOGICAL RESULTS

Patient Demographics

Mean age of 66.2 ± 13.4 years with a slight female predominance (55.2%).

Primary Symptoms

Pain (91.7%)

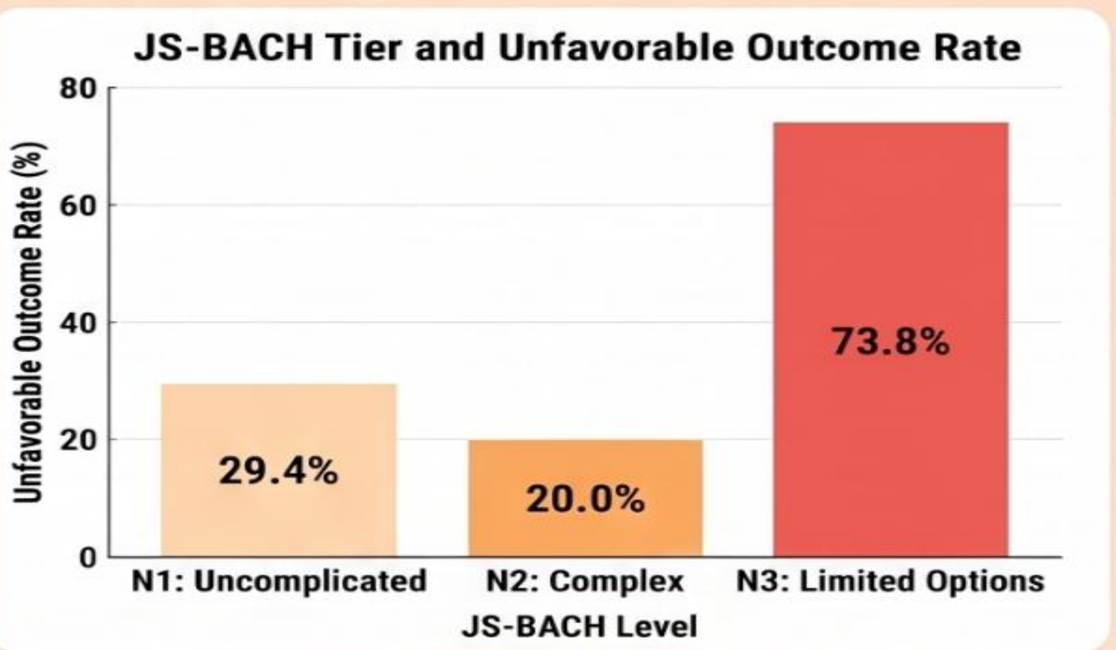
Functional Impairment

Fever (69.8%)

Microbial Profile

Microbiological documentation successful in 92 patients, with 66.3% of infections being monomicrobial.

Prognostic Correlation



Higher JS-BACH scores (N3) are significantly associated with unfavorable outcomes ($p < 0.001$).

CONCLUSIONS & CLINICAL IMPLICATIONS

High Predictive Value

Higher JS-BACH scores (specifically N3) are significantly associated with unfavorable outcomes and an increased necessity for prosthesis removal.

Clinical Utility

The classification serves as a valuable tool for assessing infection complexity and guiding therapeutic strategies in clinical practice.