

Routine Psycho-Periprosthetic Joint Infection Assessment Highlights an Alarming Prevalence of Anxiety and Depression During PJI Treatment

Alberto Telias, Sophie Alexandra Henke Tarnow, George A Grammatopoulos¹, Hesham Abdelbary¹, Paul E Beaulé², Amanda J Pontefract¹, Patricia Poulin, Simon Garceau

¹The Ottawa Hospital, ²The Ottawa Hospital General Campus

INTRODUCTION: Periprosthetic joint infections (PJI) represent the most dreaded complication after total joint arthroplasty (TJA). Akin to oncology care, PJI places a high psychological burden of distress on patients. This study aims to assess the mental health status of hip and knee PJI patients admitted to the TOH PJI service through the administration of Health-Related Quality of Life surveys (HRQOLs).

METHODS: This prospective observational study assessed patients admitted to our PJI service with a diagnosis of hip or knee PJI from November 2023 until April 2024. Baseline patient and surgical characteristics were collected. HRQOLs collected were as follows: Oxford Hip/Knee score, PROMIS, EQ-5D-5L, The Patient Health Questionnaire-4 (PHQ-4) and Demoralization scale (DS). These were administered pre-operatively, 5 days post-operatively and 3 months post-operatively following PJI surgery. PHQ-4 assesses core symptoms/signs of depression and anxiety. DS measures existential distress in patients with severe medical illness with grading as low, moderate, and high demoralization.

RESULTS:

37 patients were included: 23 males, and 14 females. Mean age was 70.7±10.6 years. 19 hip and 18 knee PJIs were included. HRQOLs pre-operatively indicated anxiety in 46%, depression in 54% and high demoralization in 71% of patients. HRQOLs 5-days post-operatively indicated anxiety in 45%, depression in 48% and high demoralization in 84% of patients. 12 patients completed HRQOLs at 3 months post-op with 42% demonstrating high demoralization. 7 patients refused to complete HRQOLs at this timepoint due to severe mental distress associated with persistent infection.

DISCUSSION AND CONCLUSION: We observed an alarming prevalence of anxiety and depression in patients treated for hip and knee PJI, which was more severe at the beginning of the PJI treatment. Moreover, patient refusal to answer HRQOLs at 3 months was also indicative of significant mental distress. These results highlight the urgent need for improvement in psychosocial PJI care.