

## **Hip arthroplasty in Parkinson patients associated with higher blood loss anemia and dislocation**

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**INTRODUCTION:** Parkinson's disease (PD) is a common neuromuscular disorder affecting gait and stability in elderly patients. With progressive increase in life span of patients with PD, the problem of degenerative arthritis and consequent need for total hip arthroplasty (THA) in this cohort are on the rise. There is relative paucity of data on outcomes and healthcare costs associated with THA in PD patients. The purpose of the study was to evaluate total hospital costs, length of stay, postoperative complications, and mortality for PD patients undergoing THA.

**METHODS:** National Inpatient Sample (NIS) database was investigated to identify patients with PD who underwent THA between 2016 and 2019. Using propensity score, PD patients were matched 1:1 for patients without PD by age, gender, nonelective admission, tobacco use, diabetes and obesity. T-tests and Chi-square analyses were used for analyzing qualitative and categorical variables, respectively (Fischer-Exact tests were for values < 5).

**RESULTS:** Overall, 367,890 (1927 patients with PD) THAs were performed between 2016 and 2019. Before matching, PD patients were significantly older ( $p < 0.001$ ), more likely to be male ( $p < 0.001$ ) and had higher non-elective admissions for THA ( $p < 0.001$ ). After matching, PD patients had higher total hospital costs ( $p < 0.001$ ), longer length of stay (LOS;  $p =$ ), higher rates of blood loss anemia ( $p < 0.001$ ) and prosthetic dislocation ( $p < 0.001$ ). No differences were seen in in-hospital mortality ( $p < 0.001$ ).

**DISCUSSION AND CONCLUSION:** A higher proportion of PD patients undergoing THA were admitted on non-elective basis. Based on our study, we could observe that the diagnosis of PD was associated with higher cost of care, longer lengths of hospital stay, higher postoperative complications.