

### **The Impact of Ulcerative Colitis on Outcomes and Complications Following Total Hip Arthroplasty**

Study Design: Retrospective analysis.

Objective: To compare outcomes and complication rates between patients with and without ulcerative colitis (UC) undergoing surgery for total hip arthroplasty (THA).

Summary of Background Data: There is limited literature evaluating the impact of UC on long-term outcomes after THA surgery.

Methods: A retrospective analysis was performed utilizing The National Inpatient Sample. Adult patients admitted for THA surgery from 2005 to 2012 with UC were 1:1 propensity score matched (PSM) by age, gender, and obesity status. Univariate analyses evaluated demographics, complications, and subsequent revision. Multivariate binary logistic regression models were also conducted to identify correlations between UC and postoperative THA outcomes, controlling for sex, age, and obesity.

Results: A total of 947 PSM pairs were identified (UC: n=947; non-UC: n = 947). Both cohorts were nearly identical in age (p=0.862), sex (p=0.549), and obesity status (p=0.942). Compared to the non-UC cohort, the UC cohort had more white patients (p=0.004). Both cohorts were comparable in Deyo score (p=0.448), length of hospital stay (p = 0.230), and total expenses (p=0.095). The average incidence rate between 2005 and 2012 for patients with UC undergoing THA is 3.87 [3.31 – 4.44] (Figure 1). This incidence rate increased by 31.61% during the study period. With a 1:1 PSM, patients with UC, compared to non-UC patients, had higher rates for medical complications (OR: 1.582 [1.004 – 2.492], p=0.048) (Table 1), but comparable surgical complication rates (OR: 1.256 [0.972 – 1.623], p=0.081).

Conclusion: In the general population undergoing THA, patients with UC - compared to non-UC patients - had comparable surgical charges, length of hospital stay, and Deyo score. UC patients had higher risk for medical complications compared to non-UC patients. These results can support management of postoperative expectations and concerns in this patient population.