

Session/Poster#

Presenter

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The Impact of Hyperparathyroidism on Outcomes and Complications Following Total Knee Arthroplasty with Minimum 2-Year Surveillance

Introduction: Hyperparathyroidism (HPT) is a condition characterized by elevated levels of parathyroid hormone causing markedly elevated serum calcium levels. There is limited literature evaluating the impact of HPT on long-term outcomes after total knee arthroplasty (TKA) surgery. Therefore, we compared outcomes and complication rates between patients with and without HPT undergoing surgery for TKA.

Methods: Using New York State's Statewide Planning and Research Cooperation system, we retrospectively reviewed patients admitted from 2009 to 2011 with diagnoses of HPT who underwent TKA with a minimum 2-year follow-up surveillance. A 1:1 propensity score-match (PSM) by age, sex, and obesity status was performed before analyzing data. Univariate analyses evaluated demographics, complications, and subsequent revision. Multivariate binary logistic regression models were conducted to identify correlations between HPT and postoperative outcomes.

Results: A total of 394 (PSM) patients were identified (HPT: n=197; no-HPT: n=197), with a mean age of 70.44 years, female % of 78.2, and obesity status of 22.3% for both cohorts (all, p>0.05). The HPT cohort, compared to the non-HPT cohort, had fewer white patients (70.6% vs. 89.3%, p=0.001), higher Deyo score (1.39 vs. 0.92, p<0.001), longer length of stay (4.66 vs. 3.49 days, p<0.001), and higher surgical charges (\$48,871.58 vs. \$33,870.85, p<0.001). With a 1:1 PSM, HPT patients, compared to the non-HPT patients, had lower risk for surgical and medical complications, cerebrovascular event, and blood transfusions.

Discussion and Conclusion: Patients with HPT had higher surgical charges, greater length of stay, and Deyo score than a (PSM) patient cohort without HPT from the general population undergoing total knee arthroplasty. HPT patients had lower risk for surgical and medical complications compared to non-HPT patients. These results can support management of postoperative expectations and concerns in this patient cohort.