Paper #48

Generalized Anxiety Disorder: A Modifiable Risk Factor for Pain Catastrophizing in Joint Replacement

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Introduction: Patients with mood disorders undergoing total joint arthroplasty (TJA) are at increased risk for poor functional outcomes, revision, and dissatisfaction. Therapy with serotonin reuptake inhibitors (SSRI/SNRI) is proven treatment for generalized anxiety disorder (GAD). This study seeks to examine the effect of GAD on postoperative pain and evaluate if GAD is a modifiable risk factor for poor postoperative pain control following TJA.

Methods: Between March 2019 and March 2020 at a single-center, 218 TJA patients had preoperative anxiety screening using the Generalized Anxiety Disorder 2-item screening tool (GAD-2; score of ≥3 is the cut-off for GAD in the general population) and 6-week postoperative Pain Catastrophizing Scale (PCS) scores. Patients were organized into 4 cohorts based on preoperative SSRI/SNRI use and GAD-2 scores:

Group 1: No SSRI/SNRI use, GAD-2 score <3 – Control patients

Group 2: SSRI/SNRI use, GAD-2 score <3 – Appropriately treated GAD patients

Group 3: SSRI/SNRI use, GAD-2 score ≥3 – Undertreated GAD patients

Group 4: No SSRI/SNRI use, GAD-2 score ≥3 – Untreated GAD patients

The cohorts were subjected to multivariate linear regression analysis and equivalence testing with two-one-sided t-tests.

Results: Patients with preoperative GAD-2 scores ≥3 had worse postoperative pain as shown by a significantly higher average 6-week postoperative PCS score than patients with GAD-2 scores <3 (9.25 vs. 5.08, respectively; p=0.003). Patients with appropriately treated GAD and the control group had statistically equivalent postoperative pain while patients with undertreated or untreated GAD had worse postoperative pain.

Conclusions: Preoperative GAD is a risk factor for poor postoperative pain control following TJA but is a modifiable risk factor when patients are appropriately treated. Screening for preoperative GAD with GAD-2 and referral for treatment is a method to potentially improve patient outcomes and reduce postoperative opioid consumption following TJA.

Notes