Selective Serotonin Reuptake Inhibitors Are Associated with Increased Bleeding Related Complications Following Primary Total Hip and Total Knee Arthroplasty

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Introduction

Approximately 10-22% of patients undergoing total hip arthroplasty (THA) and total knee arthroplasty (TKA) are diagnosed with depression. Pre-operative depression is associated with poorer patient reported outcomes, costs and increased complications. Selective serotonin-reuptake inhibitors (SSRIs) are first-line treatment for depression due to their efficacy and low side effect profile. There are conflicting studies regarding SSRI-related bleeding complications. This study compares the rate of bleeding-related complications in THA and TKA patients taking SSRI’s to a control group of non-SSRI users.

Methods

A retrospective single institution study of 16,407 primary THA and TKA’s from 2008 to 2018 was performed. Patients with THA for fracture, conversion arthroplasty with existing hardware, revision TJA, and uni-compartmental knee arthroplasty. Patients taking SSRIs (2,588) were compared to non-SSRI users (13,819). Patient demographics were reviewed and matched at a 3:1 ratio. Multivariate logistic regression analysis was performed and adjusted to control for potential confounders.

Results

Patients on SSRI had a significant increase in transfusion, post-operative anemia, irrigation and debridement (I&D) and superficial infection. There was a trend towards increased hematoma and revision. There was a significantly higher rate of pulmonary embolism for
SSRI users compared to non-SSRI. Rates of 1-year PJI, hematoma removal or calculated blood loss did not differ.

**Discussion**

The rate of bleeding related complications is significantly greater in SSRI users undergoing TKA and THA. Poorer outcomes in depression may be due to the intrinsic nature of the disease; however, increased pain due to swelling and wound complications may be due to increased rates of bleeding in SSRI users.