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

Kyle Plusch

Thomas Jefferson University, kyle.plusch@jefferson.edu

John Stammers, MBBS, FRCS

Thomas Jefferson University, john.stammers@jefferson.edu

Alexus M. Cooper

Thomas Jefferson University, alexus.cooper@jefferson.edu

Chi Xu, MD

Thomas Jefferson University, chi_xu@jefferson.edu

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Thomas Jefferson University, paul.kitei@jefferson.edu

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See next page for additional authors

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Authors

Kyle Plusch; John Stammers, MBBS, FRCS; Alexis M. Cooper; Chi Xu, MD; Paul Kitei, MD; Javad Parvizi, MD, FRCS; and Jess H. Lonner, MD

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

John Stammers, MBBS FRCS; Alexis M. Cooper, BS; Kyle Plusch, BA; Chi Xu, MD; Paul Kitei, MD; Javad Parvizi, MD, FRCS*; Jess H. Lonner, MD

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.