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For select patients, taking medication to treat anxiety, depression before and after hip or knee replacement surgery reduces revision risk

SAN DIEGO, Calif. (March 14, 2017)—Patients who take selective serotonin reuptake inhibitors (SSRIs), commonly prescribed medications used to treat anxiety and depression, may experience a reduced risk of revision surgery following [total hip](#) (THR) or [total knee replacement](#) (TKR), according to new research presented today at the [2017 Annual Meeting of the American Academy of Orthopaedic Surgeons \(AAOS\)](#).

Depression, which is common in patients undergoing THR and TKR, has long been associated with poor patient-reported orthopaedic outcomes, higher complication rates, longer hospital stays and increased costs.

In a first-of-its-kind study, researchers reviewed the records of more than 20,000 THR and TKR patients age 18 and older from 2002 through 2009, including patient and surgery characteristics and outcomes (dates of care, types of complications, revisions and mortality). Patient medication records, beginning at admission and ending at discharge, determined SSRI use. Among the results:

- A diagnosis of depression was present in 1,290 (6.4 percent) of patients, and SSRIs were administered in 1,563 (7.8 percent) of patients.
- Depression was associated with a doubling of joint infection risk, overall long-term risk of revisions, and revisions for aseptic loosening (a failure of the bond between the bone and the implant).
- SSRI-users appeared to have a similar rate of joint infections compared with non SSRI users; however, patients who received perioperative SSRIs experienced an almost 60% lower rate of revision surgery, including revisions for aseptic loosening.

“While, the potential mechanisms for this finding are currently unknown, we speculate that the lower revision risk in SSRI users may reflect a higher level of health in SSRI users, better management of depression and pain in these patients, or potential positive biologic effects of SSRIs,” said Daniel J. Berry, MD, lead study author and an orthopedic surgeon at the Mayo Clinic in Rochester, Minn. “Currently there is no laboratory evidence to explain how SSRIs affect the fixation, or success, of orthopaedic implants.”

While the use of SSRIs before and after surgery has been associated with some side effects, including bleeding, the study authors conclude that the continuation of SSRIs for THR and TKR patients does not have detrimental effects on the risk of revision and related complications.

“Depression and psychiatric comorbidity and antidepressant medications are rarely considered when evaluating perioperative risk factors among hip and knee replacement candidates,” said Dr. Berry. “Studies such as this raise awareness to better recognize and manage comorbidities and chronic medications in these patients.”

[Study abstract](#)

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