

The Effect of Treatment of Anxiety and Depression on Complication Rate following Total Joint Arthroplasty

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INTRODUCTION: Anxiety and depression are associated with increased complication rates following total joint arthroplasty (TJA). This study aims to investigate if treatment of these conditions decreases postoperative complication rates.

METHODS: Patients with an anxiety or depression diagnosis undergoing TJA were identified in the Research Action for Health Network (REACHnet) database. There were 3,678 patients in the anxiety cohort and 4,213 patients in the depression cohort. Based on prescription data, patients were stratified into “daily use,” “exposure,” and “no use” of each medication. Patient demographic factors and medication use were analyzed using logistic regression to identify an association with postoperative complications.

RESULTS: In the anxiety cohort, exposure to benzodiazepines increased complication rates compared to daily use or no use (48.4% vs 39.6% and 40.3%, respectively; $p=0.016$). Daily antidepressant use decreased the complication rate compared to exposure to antidepressants or no use (24.2% vs 44.6% and 40.9%, respectively; $p=0.005$). In the depression cohort, exposure to benzodiazepines increased complication rates compared to daily use or no use (48.5% vs. 41.9% and 40.9%, respectively; $p=0.037$). Daily antidepressant use did not significantly decrease complication rates ($p=0.096$), but exposure to antidepressants significantly increased complication rates compared to daily or no use (47.5% vs. 33% and 41%, respectively; $p=0.033$). However, this finding was not present after controlling for other factors.

DISCUSSION AND CONCLUSION:

Because anxiety and depression increase complication rates following TJA, it is important to know if pharmacologic treatment affects complication rates. Exposure to benzodiazepines may increase complication rates due to its pharmacologic side effect profile, or it may reflect inadequately controlled anxiety. Consistent antidepressant use may be beneficial for anxiety patients to decrease complication rates, but further studies are needed to evaluate its role for depressed patients.