

## **The Effect of Anticoagulants during Hand Surgery Performed Under Local Anesthesia: A Review of 2,162 Consecutive Cases**

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### **INTRODUCTION:**

The purpose of our study was to determine if perioperative prescription anticoagulant (AC) or antiplatelet (AP) medication use increases the rate of revision surgeries or complications following hand surgery performed wide awake under local anesthesia only. We hypothesized that AC/AP use would not confer additional risk of revision or complication following local anesthesia surgeries.

### **METHODS:**

Using our surgical database, we identified all patients who underwent outpatient hand surgery under local anesthesia by two fellowship-trained orthopaedic hand surgeons at a single orthopaedic practice from 1/1/2018 through 12/31/2020. The prescription history was reviewed to determine if any prescriptions were filled for an AC or AP drug within 90 days of surgery. All cases requiring revision were identified. Office notes were reviewed to determine if a postoperative complication occurred and/or if postoperative antibiotics were prescribed for infection concern. Chi-square analysis was performed to compare the numbers of revisions, complications, and postoperative antibiotic prescriptions between patients that used perioperative AC/AP drugs and those who did not.

### **RESULTS:**

A total of 2,162 local anesthesia surgeries were performed from 2018 to 2020, and there were 128 cases (5.9%) with perioperative AC/AP use. Of the total 2,162 cases, 19 cases (0.88%) required a revision surgery (18 without AC/AP use (0.88%), 1 with AC/AP use (0.78%),  $p=.903$ ). The single revision that occurred in an anticoagulated patient was not due to a bleeding-related complication. Postoperative wound complications were present in 42 patients (1.9%) (38 without AC/AP use (1.87%), 4 with AC/AP use (3.1%),  $p=.318$ ). Of the 42 total complications, 4 were related to postoperative bleeding, consisting of one case of incisional bleeding and three incisional hematomas (3 without AC/AP use, 1 with AC/AP use,  $p=.106$ ). None of these 4 patients required any additional intervention, and their incisional bleeding or hematoma resolved by their subsequent office visit. Finally, 65 patients received postoperative antibiotics for infection concern (59 without AC/AP use, 6 with AC/AP use,  $p=.251$ ).

### **DISCUSSION AND CONCLUSION:**

Prescription anticoagulant or antiplatelet use in the perioperative period for hand surgery performed under local anesthesia conferred no significant increase in risk for revision surgery, postoperative antibiotic prescription, postoperative wound complication, or postoperative bleeding. This study demonstrates the safety of continuing patients' prescribed AC/AP medications prior to hand surgery.