Is Fluoroquinolone Exposure after Primary Tendon Repair Associated with Higher Rates of Reoperations? A Matched Cohort Study.

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INTRODUCTION:
The association between tendon damage and fluoroquinolone (FQ) antibiotics has been well documented. However, there is limited data evaluating the impact of postoperative FQ use on outcomes of primary tendon repairs. The purpose of this study was to compare rates of reoperation for patients with FQ exposure after primary tendon repair versus controls.

METHODS:
A retrospective cohort study was conducted using the PearlDiver database. All patients who underwent primary repair of distal biceps ruptures, Achilles tendon ruptures, and rotator cuff tears were identified. For each tendon, patients who were prescribed FQs within 90 days postoperatively were propensity score matched at a 1:3 ratio with controls without postoperative FQ prescriptions across age, sex, and several comorbidities. Rates of reoperation were compared at two years postoperatively with multivariable logistic regression.

RESULTS:
A total of 124,322 patients who underwent primary tendon procedures were identified, including 3,982 (3.2%) patients with FQ prescriptions within 90 days postoperatively: 448 with distal biceps repair, 2,538 with rotator cuff repair, and 996 with Achilles tendon repair. These cohorts were matched with 1,344, 7,614, and 2,988 controls, respectively. Patients with postoperative FQ prescriptions exhibited significantly higher rates of revision surgery after primary repair of distal biceps ruptures (3.6% vs. 1.7%; OR 2.13; 95% CI, 1.09—4.04), rotator cuff tears (7.1% vs. 4.1%; OR 1.77; 95% CI, 1.48—2.15), and Achilles tendon ruptures (3.8% vs. 1.8%; OR 2.15; 95% CI, 1.40—3.27).

DISCUSSION AND CONCLUSION:
Patients with FQ prescriptions within 90 days after primary tendon repair demonstrated significantly higher rates of reoperations for distal biceps, rotator cuff, and Achilles tendon repair at two years postoperatively. To achieve optimal outcomes and avoid complications in patients following primary tendon repair procedures, physicians should consider prescribing alternative non-FQ antibiotics and counsel patients on the risk of reoperation associated with postoperative FQ use.