Use of Tranexamic Acid in Gender-Affirming Mastectomy Reduces Rates of Postoperative Hematoma and Seroma

Event:

2023 New York Regional Society of Plastic Surgeons Annual Residents' Night Research Competition

Abstract No:

3396

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Abstract Text:

BACKGROUND: Tranexamic acid (TXA) has emerged as a powerful adjunct for minimizing perioperative blood loss, with established safety and efficacy in multiple surgical specialties leading to recent increased interest within plastic surgery. Prior studies demonstrate decreased edema, ecchymosis, and reduced rates of postoperative collections with administration of TXA, however its use has not been reported in gender-affirming mastectomy. This represents the first study to evaluate the impact of TXA on postoperative outcomes in patients undergoing gender-affirming mastectomy.

METHODS: A single-center cohort study was performed analyzing all consecutive patients undergoing top surgery with the senior author between February 2017 and October 2022. Beginning in June 2021, all patients received 1000 mg intravenous TXA prior to incision and 1000 mg at the conclusion of the procedure. Patients were stratified according to intraoperative administration of TXA, with demographics, surgical characteristics, and postoperative outcomes compared between groups. Multivariate regression was also performed to evaluate the impact of TXA while controlling for potential confounding variables.

RESULTS: A total of 851 patients underwent gender-affirming mastectomy. Of these, 646 cases were performed without TXA, while 205 patients received intravenous TXA intraoperatively as above. Patients who received TXA had significantly lower rates of seroma (20.5% vs. 33.0%; $p<0.001$), and hematoma (0.5% vs. 5.7%; $p=0.002$). There was no difference in rates of surgical site infection ($p=0.74$), and use of TXA was not associated with increased rates of venous thromboembolism ($p=0.42$).

CONCLUSIONS: Intraoperative administration of TXA in patients undergoing top surgery may safely reduce the risk of postoperative seroma and hematoma without increased risk of thromboembolic events. Additional data collection and prospective studies are warranted to corroborate these

findings, however, TXA appears to provide plastic surgeons a powerful strategy for reducing postoperative complications without significant added risk.

Tracks:

Clinical