

# The Twisted Truth: Decision-to-Incision Time in Ovarian versus Testicular Torsion

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## INTRODUCTION

- Ovarian torsion (OT) and testicular torsion (TT) are surgical emergencies. Delays in treatment of either condition will result in the loss of gonadal function and fertility.
- We aimed to describe the length of time between a surgeon's **decision to operate emergently** on gonadal torsion and the **start of the operation**, termed decision-to-incision time (DTI), and compare DTI between OT and TT. DTI is a measurement of resource mobilization and team efficiency.

## METHODS

- Twenty-one emergent cases of OT and nineteen emergent cases of TT were identified.
- DTI was calculated retrospectively based on case posting time and incision time as recorded in the electronic medical record.
- Variables included patient demographics, time of day, and surgeon gender and experience level.
- Poisson regression was used.

## DECISION TO INCISION TIME (DTI)

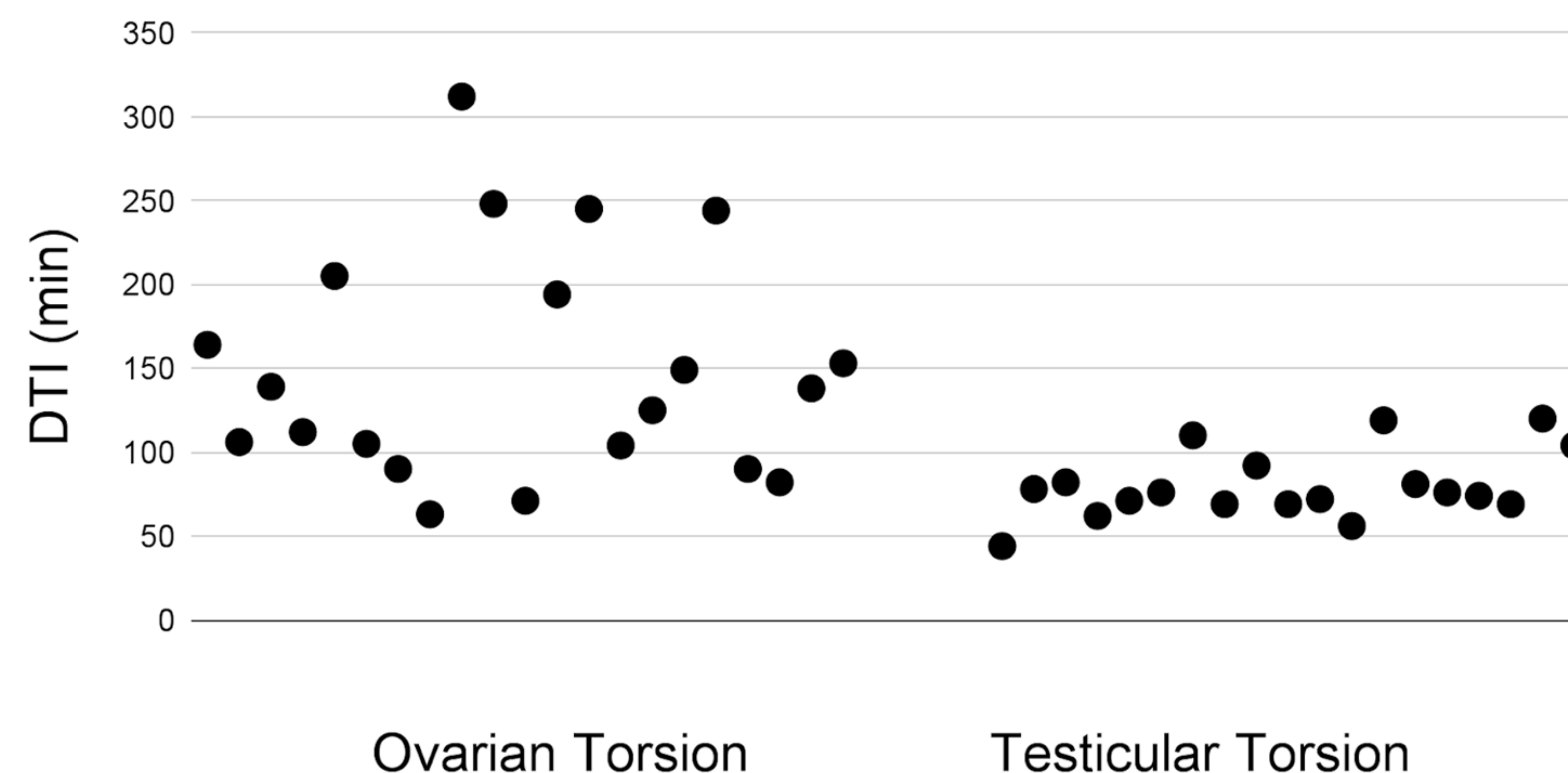
Presentation → Diagnosis → Case Posting → Incision Time

DTI

## CONCLUSION

Patients undergoing emergency surgery for treatment of ovarian torsion have a delayed **decision-to-incision time that is nearly double** as compared to patients with testicular torsion. It is important to note that this time is *after* diagnosis. Steps must be made to identify barriers to expeditious treatment of ovarian torsion to avoid adverse patient outcome.

Decision-to-Incision Time in Gonadal Torsion



## RESULTS

- Overall DTI was 116.6 min (range 55-178).
- **Median DTI was 153.2 min for OT and 80.2 min for TT** ( $p=0.003$ ).
- OT cases were more likely to have a DTI > 90 min compared to TT cases (76.2% vs 26.3%,  $p=0.004$ ).
- Gonadal torsion patients with BMI > 25 were less likely to have DTI < 90 min compared to those with a BMI  $\leq 25$  (69.6% vs 29.4%,  $p = 0.024$ )
- OT patients were more likely to undergo gonadal tissue excision intraoperatively than TT patients (57% vs 26.3%,  $p = 0.06$ )

