

**2018 ACMT Annual Scientific Meeting
FIT Open Mic**

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Title: Inadvertent Administration of Intrathecal Tranexamic Acid: A Problem?

Abstract: Spinal anesthesia is being used more recently due to studies showing decreased risk of death, bleeding, hospital lengths of stay and operating room time. Increased usage leads to an increased chance for inadvertent administration of medications due to errors. The infusion of tranexamic acid, commonly used in surgical procedures, into the intrathecal space can have significant symptoms and possibly mortality.

Methods: This is a single patient case report and a review of literature. A comprehensive review of Pubmed, Google Scholar, and article reference lists was performed.

Results: A 63-year-old male was scheduled for an elective total knee replacement. During spinal anesthesia, 200 mg of tranexamic acid (TXA) was infused instead of bupivacaine before the correct medication was given. The patient had significant uncontrolled full body myoclonic jerking motions. The patient was intubated and started on high dose propofol and benzodiazepine medication to control his myoclonic jerking. The patient had decreasing full body myoclonic jerking over the next seventy-two hours. He eventually had a full recovery. The literature shows that TXA is both a glycine and GABA antagonist. This can lead to both seizure activity and significant myoclonic contractions with minimal stimulation. Case reports of death TXA due to cardiac collapse seem to occur after extremely elevated heart rate and blood pressure of unclear mechanism. Case reports show some promising treatments but literature only supports aggressive supportive care.

Conclusion: Intrathecal administration of tranexamic acid causes significant morbidity and possibly death and the best treatment is supportive care.

Objective 1: Discuss the signs and symptoms consistent with tranexamic acid intrathecal administration.

Objective 2: Discuss the physiologic mechanisms that lead to observed signs and symptoms.

Objective 3: Discuss the current suggested treatments and rationale for specific treatment options.