Title:
Efficacy of epsilon-aminocaproic acid in reduction of hemorrhage following scrotal urethrostomy in dogs

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If interested, please have your primary veterinarian request additional information through the Surgery service by calling the clinical research coordinator at 706-296-7818.

Study description:
Dogs may develop obstructions of their urethra that do not allow them to urinate normally (frequently due to bladder stones that get stuck in the urethra). In some cases, the obstruction cannot be removed and a permanent opening between the urethra and the skin (scrotal urethrostomy) is created to allow urine to flow out. Dogs undergoing scrotal urethrostomy experience post-operative hemorrhage from the surgical site that may last up to weeks after surgery. Post-operative bleeding prolongs hospitalization stays, increases financial burden to the client, and may perpetuate incisional complications. Epsilon-aminocaproic acid (EACA) has been used in humans for the treatment of bleeding from the urinary tract. The objective of this study is to determine if administration of EACA to dogs in the period surrounding scrotal urethrostomy surgery will reduce post-operative hemorrhage, ultimately leading to shorter hospitalization duration. We hypothesize that EACA administration in these patients will reduce the duration of post-operative hemorrhage and hospitalization by at least 2 days.

Inclusion criteria:
1. Dogs must be male (either intact or neutered)
2. Any age and breed is acceptable

Exclusion criteria:
1. Dogs receiving a non-steroidal anti-inflammatory drug within 7 days preceding study
2. Dogs having an abnormal coagulation profile
3. Dogs having urethrostomy via a non-scrotal approach
4. Dogs in critical condition

After confirmation of normal pre-operative coagulation parameters, dogs will be randomly assigned to receive EACA or a placebo. Oral dosing will begin the day before surgery and continue for 5 days afterward. After surgery, a red blood cell count, urine evaluation to check for presence of blood, and a bleeding score will be assessed on a daily basis to determine the effectiveness of the drug. All dogs will receive trazodone (a drug used to reduce anxiety) in the post-operative period. Otherwise, care of the patients will proceed as indicated for each specific patient. Owners will be contacted by telephone for follow up information 30 days after the date of surgery to determine if any hemorrhage occurred after discharge from the hospital.

The study will pay for the costs of the baseline assessment of blood clotting, the daily assessment
of red blood cell count and blood in the urine, and the test medication. Additionally, clients will receive a $50 credit on their final bill. Clients will be responsible for all other costs pertaining to their dog’s diagnosis and treatment.

**Duration of study:**
The study is currently OPEN.

**Potential benefits to veterinary medicine:**
Results may show that treatment with EACA may reduce the duration of post-operative hemorrhage following scrotal urethrostomy by at least 2 days, leading to faster discharge from the hospital and improved outcomes. If the expected outcome is achieved, veterinarians may consider use of this drug for this procedure and other conditions in which urinary tract hemorrhage is a concern.