

Assessing Postoperative Pain in Pigs After Celiotomy or Laparoscopic Spay

Purpose

To test if minimally-invasive ovary removal will have fewer complications and improve recovery in pet pigs compared to the traditional abdominal surgery ovariectomy spay technique

Background

Veterinarians often recommend spaying female pet pigs to decrease the risk of cancer and reduce aggressive behaviors. Traditional spays require invasive abdominal surgery to remove both the uterus and ovaries. However, in dogs and cats, removal of only the ovaries has been shown to adequately reduce both cancer risks and behavioral issues. Ovary removal can be performed laparoscopically, which decreases the risks of post-surgical complications associated with abdominal surgery. The outcomes of this technique have been studied extensively in dogs and cats, but there is minimal data available in pet pigs.

This study aims to test if minimally-invasive ovary removal will have fewer complications and improve recovery in pet pigs compared to the traditional abdominal surgery spay technique. We hope that offering a minimally invasive procedure to miniature pig owners will increase their willingness to have females spayed and decrease the risk of euthanasia or surrendering to rescues due to behavioral problems.

Eligibility

- Healthy, intact female mini pigs whose owners have elected a spay procedure
- Pigs must be over 4 months of age and weigh between 35-175 lbs. with a body condition score of 2 to 4 out of 5
- Owner willingness to comply with study requirements, including follow-up surveys

Exclusion Criteria

- Pigs with underlying health conditions that may increase risks associated with a spay procedure
- Pigs whose temperament makes participation impractical

Study Design

If you agree to enroll your miniature pig in the study, she will be randomly assigned to either routine spay surgery or a minimally-invasive approach that removes only the ovaries.

Baseline physical examination and pain scores will be taken before and after surgery. We'll monitor your pig closely and measure her physical signs and behavior before, during, and after surgery. While your pig is in the hospital, we will assess parameters associated with pain and stress.

Owners will be contacted via email and/or over the phone to complete surveys at 1 week, 1 month, 6 months, and 1 year post-operatively. Participation in these surveys is optional, but the input generated will be extremely useful to assess the pet's recovery at home and long-term satisfaction from the clients. We will send a short survey every year to assess the long-term outcomes of removing ovaries only versus the ovaries and uterus. If at any time you wish to stop receiving the surveys, you may contact us and we will remove you from list.

Compensation

Currently, the laparoscopic (minimally-invasive) procedure is ~\$500 more expensive to perform in our hospital due to the sophisticated equipment required. The study will cover the additional \$500 for pigs randomly selected to undergo the laparoscopic procedure, so that the price will be equal to our standard surgical procedure. In addition to the standard monitoring procedures, enrolled pigs will receive additional monitoring that includes assessing stress parameters via blood sampling and behavioral scoring at no extra cost to owners.

This increased monitoring will benefit the animals by allowing for earlier and better pain management or other post-operative interventions if needed.

If at any time, you are uncomfortable with involvement in this project, you can request to no longer be enrolled. Un-enrolling your pig in this project will disqualify you from receiving a stipend towards your veterinary bill (for those enrolled in the laparoscopic procedure) and you will be required to pay the full price for the procedure and any extra monitoring that was already performed.

Contact

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If your query is urgent, please call the Large Animal Hospital on (540) 231-4621.