INTRA-OPERATIVE PROCEDURE

**UMBILICAL** **HERNIORRHAPHY IN PINKY THE PIG**

Step 1: The generalize surgical pack was opened and all the instruments was laid out onto a sterile drape on a table.

Step 2: The sterile drapes were removed from the pack and a four-corner draping was done around the mass.

Step 3: A midline incision was made immediately cranial and caudal to the mass followed by an elliptical incision around the hernia sac (4cm cranial and 3 cm caudally from the mass) using a #24 scalpel blade.

Step 4: Blunt dissection of the subcutaneous layer and tissue adhesions around the mass was done using a blunt curved mayo scissor along with the surgeon’s fingers and traction.

Step 5: 10ml of lidocaine was used as instillation (splash block) while the mass was dissected. (localized anaesthetic and to keep the area moist)

Step 6: The curved scissor was further advanced laterally around the mass on both sides until the tissue adhesions around the mass were separated.

Step 7: Hemostatic forceps and some ligatures were made to stop excessive bleeding of blood vessels when detaching the mass. The tissue adhesion around the mass was broken down by blunt dissection with fingers and traction.

Step 8: A 2 cm incision was carefully made laterally to open the abdominal wall along the linea alba and cranial to hernia ring. (This was done to allow the surgeon’s finger into the peritoneal cavity to palate for any structures associated with the umbilicus).

Step 9: The surgeon’s finger (one) was then placed inside the peritoneum to feel for intestine and any further adhesions to the mass and the animals body wall. This was done by the sweeping her fingers up and under the mass around the peritoneum. **(This was done to determine if the mass was going cranial or caudal. Cranial indicate going to liver and caudal would indicate urachus or omentum**).

Step 10: The mass was attached to the body wall with remnants of the umbilicus.

Step 11: The skin flap and mass was removed from the body wall using a scalpel blade

Step 12: The 8cm in diameter mass was placed on an awaiting steel tray.

Step 13: Army-Navy retractors were used to elevate the abdomen and keep the intestines inside the peritoneum and to prevent puncture and gross contamination while suturing being done. sterile gauzes were used to wipe any excessive bleeding when the mass was removed.

Step 14: The hernia ring was determined and the abdominal layers and muscles were sutured with Nylon (Non-absorbable suture material) using six (6) vest over pants tension relieving suture patterns.

Step 15: The subcutaneous layer was sutured using no. 2 polypropolene absorbable suture with a simple continuous pattern.

Step 16: The skin was sutured using Nylon (non-absorbable suture material) with an interrupted horizontal mattress (tension relieving) pattern. It was also followed with a simple continuous suture patterns in between the horizontal mattress suture pattern, to reassure non-exposure of the inner layer of the epidermis and the dermis.

Step 17: The surgical site was cleaned with sterile gauze to remove any additional blood.

Step 18: A gauze with diluted chlorhexdine was used to wipe away any additional blood from the surgical site and body.

Step 19: The surgical site was sprayed with Tetravet followed by Alu spray and larvicide around the surgical field.

Step 20: The mass was later dissected and it revealed a straw colour fluid consistent with urine which was tentatively concluded that this was a persistent urachus. Samples were taken for histological analysis.

Step 21: The animal was returned to a dry and comfortable pen in hospital.

Step 22: Post-op instructions were given (P**lease see post-op**)

**PLEASE NOTE: IN THE CASE OF A MALE**

The prepuce, preputial diverticulum, and penis should be reflected posteriorly or to one side (e.g., inverted “V” or “J” incision.) The hernia sac is isolated, and dissection is performed to the hernia ring. The hernia sac and any abscesses should be removed and the edges of the ring freshened. If intestinal contents adhere to the hernia sac, the adhesions are separated, and bowel viability is assessed before replacing it in the abdomen if judged acceptable. If intestinal viability is compromised, resection and anastomosis of viable intestine should be performed. The abdominal defect is closed in an overlapping or simple continuous pattern.

The prepuce, preputial diverticulum, and penis are repositioned and sutured to the abdominal muscle with absorbable suture material. The skin is sutured using a simple interrupted pattern of nonabsorbable suture material.