LAPAROSCOPIC APPROACH

INTRA-OP



https://www.youtube.com/watch?v=MC3Ju QzilnE&ab channel=LesMeadowcroft

SEDATION

- Xylazine (0.5mg/kg)
- Butorphanol (0.05mg/kg)
 - Maintained through continuous IV infusion (jugular cathether) of detomidine (20mg detomidine in 1 L polyionic replacement fluids)

LOCAL ANESTHESIA

• 2% Lidocaine - Local portal site blocks or inverted L block

POSITIONING

• In stocks - Standing

PREPARATION OF SITE

• Aseptic preparation of flank



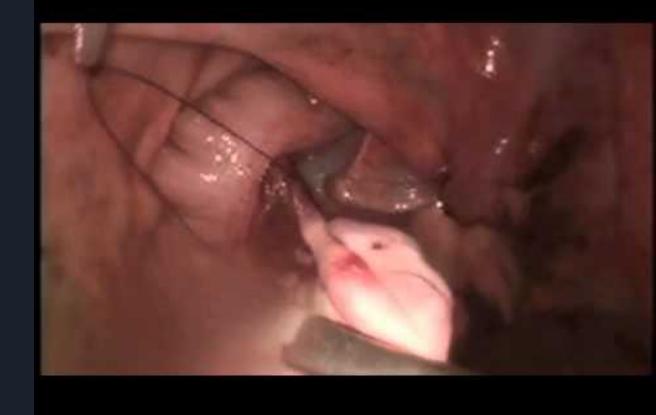
https://www.youtube.com/watch?v=_jC_gGtekwo&ha s_verified=1&ab_channel=UFVetMed

- 1. Fast for approximately 4 to 8 hours before surgery
 - Prevents intestinal contents from interfering with visualization within abdomen
- 2. Determine body weight using a scale or a girth weight estimator tape (note body type e.g., lean/racing, conditioned, draft)
- 3. Prepare (clip and scrub) the surgical site
 - Aseptically prepare both flanks in bilateral cryptorchids
- 4. Place and secure an IV catheter in a jugular vein before induction

INSTRUMENTATION

- 1. General surgery pack
- 2. 3–4 surgical drapes
- 3. Additional towel clamps
- 4. Telescope
- 5. Light source with attached light cord
- 6. Mare urinary catheter
- 7. Veress needle, teat cannula, or trochar catheter
- 8. Sharp and blunt trochars
- 9. 3–6 cannulas, 10mm in diameter and 15–20 cm long
- 10. 10-mm serrated laparoscopic scissors
- 11. 1–2 10-mm acute claw graspers
- 12. Laparoscopic injection needle
- 13. Knot pusher
- 14. Endoscopic suture materials
- 15. Laparoscopic video camera

Laparoscopic Technique in a Cryptorchid Horse



https://www.youtube.com/watch?v=S6Nqa6kpRMM&t=2s&has_verified=1&ab_channel=PatonandMartinVeterinaryServices

TECHNIQUE:

- Make a 1cm incision for example, in the left flank, for left-sided bilateral cryptorchids and vice versa, at the base of the tuber coxae, midway between the tuber coae and the last rib
- 2. Incise the skin and fascia of the external abdominal oblique muscle
- 3. Place a laparoscopic cannula through the incision
- 4. Direct it toward the opposite (right) stifle and insert it through the body wall in one continuous motion.
- 5. Listen for air being drawn into the abdomen to know that the cannula is in the peritoneal space or insert the laparoscope.
- 6. Insufflate the abdomen to a pressure of 12-15mmHG
- 7. Place two more portals 10cm dorsal and slightly rostral and 10cm ventral to the first portal.
- 8. Place the laparoscope in the dorsalmost portal

9. Explore the abdomen

- 10. Place instruments in the middle and ventral portals to lift the small colon in order to observe the opposite inguinal area to determine the location of the testes
- 11. Identify the ipsilateral testis and grasp it
- 12. Infiltrate the mesorchium with 2% lidocaine using a laparoscopic injection needle
- 13. Place a laparoscopic slipknot in a knot pusher into a 5mm reducing cannula and insert it into the middule cannula.
- 14. Advance the loop into the abdomen and place the acute claw grasper into the ventral cannula

- 15. Grasp the testis through the loop and place it over the testis and onto the mesorchium and tighten
- 16. Cut the long end of the suture and transect the mesorchium distal to the knot
- 17. Assess the pedicle for bleeding
- 18. Enlarge the ventralmost incision and remove the testis or use a 'specimen bag' to collect the testis and pull it through the incision
- 19. Close the external abdominal oblique fascia of the enlarged incision using no. 0 polyglyconate in a simple continuous pattern
- 20. Close the skin with a synthetic nonabsorbable suture material



Management

 Confine for 3 days before returning to full exercise

Complications

- Peritonitis
- Intestinal perforation
- Haemorrhage