

# LAPAROSCOPIC APPROACH

INTRA-OP



[https://www.youtube.com/watch?v=MC3JuQzilnE&ab\\_channel=LesMeadowcroft](https://www.youtube.com/watch?v=MC3JuQzilnE&ab_channel=LesMeadowcroft)

## SEDATION

- Xylazine (0.5mg/kg)
- Butorphanol (0.05mg/kg)
  - Maintained through continuous IV infusion (jugular catheter) 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\\_gTekwo&has\\_verified=1&ab\\_channel=UFVetMed](https://www.youtube.com/watch?v=_jC_gTekwo&has_verified=1&ab_channel=UFVetMed)

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



## TECHNIQUE:

1. 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 coxae 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 middle 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





# POST-OP

## Management

- Confine for 3 days before returning to full exercise

## Complications

- Peritonitis
- Intestinal perforation
- Haemorrhage