



# CASTRAÇÃO CIRÚRGICA DE MACHOS EQUINOS

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# Equine castration: review of anatomy, approaches, techniques and complications in normal, cryptorchid and monorchid horses

D SEARLE, AJ DART, CM DART and DR HODGSON

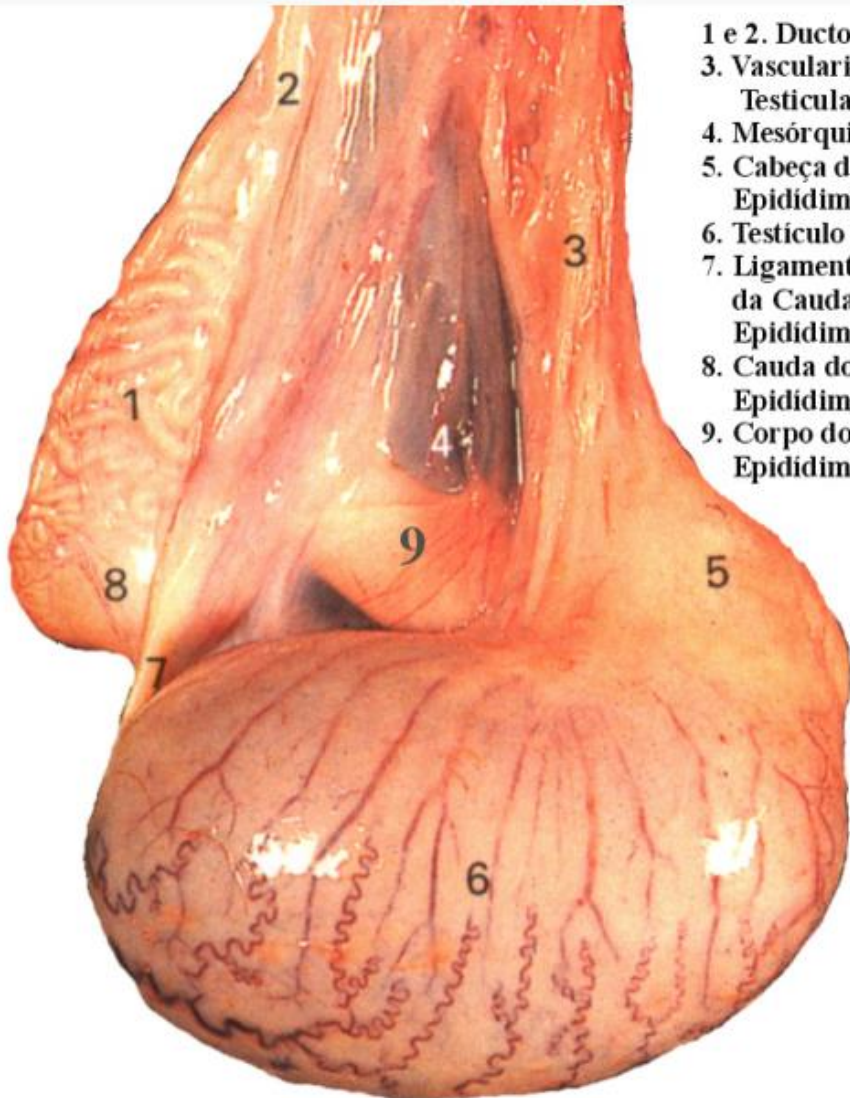
University Veterinary Centre, Department of Veterinary Clinical Sciences, The University of Sydney, Werombi Road, Camden, New South Wales 2570

Complications associated with equine castration are the most common cause of malpractice claims against equine practitioners in North America. An understanding of the embryological development and surgical anatomy is essential to differentiate abnormal from normal structures and to minimise complications. Castration of the normal horse can be performed using sedation and regional anaesthesia while the horse is standing, or under general anaesthesia when it is recumbent. Castration of cryptorchid horses is best performed under general anaesthesia at a surgical facility. Techniques for castration include open, closed and half-closed techniques. Failure of left and right testicles to descend occurs with nearly equal frequency, however, the left testicle is found in the abdomen in 75% of cryptorchid horses compared to 42% of right testicles. Bilateral cryptorchid and monorchid horses are uncommon. Surgical approaches described for the castration of cryptorchid horses include an inguinal approach with or without retrieval of the scrotal ligament, a parainguinal approach, or less commonly a suprapubic paramedian or flank approach. Laparoscopic castration of cryptorchid horses has recently been described but the technique has limited application in practice at this time. A definitive diagnosis of monorchidism can only be made after surgical exploration of the

# CASTRACÃO DE MACHOS

- Um dos procedimentos mais comuns da rotina equina;  
[1, 2]
- Alta ocorrência de complicações relacionadas à cirurgia:
  - Hemorragia autolimitante;
  - Hemorragia grave;
  - Evisceração;  
[3]
- Uma compreensão completa da anatomia e fisiologia associadas a uma boa técnica cirúrgica reduzirão a taxa de complicações cirúrgicas;
- Presença e morfologia dos testículos.

# ANATOMIA TESTICULAR



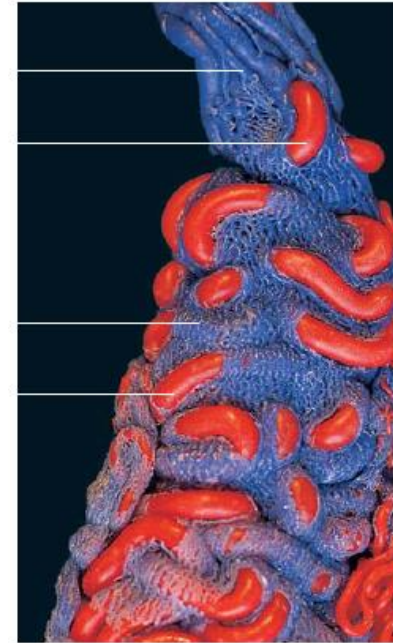
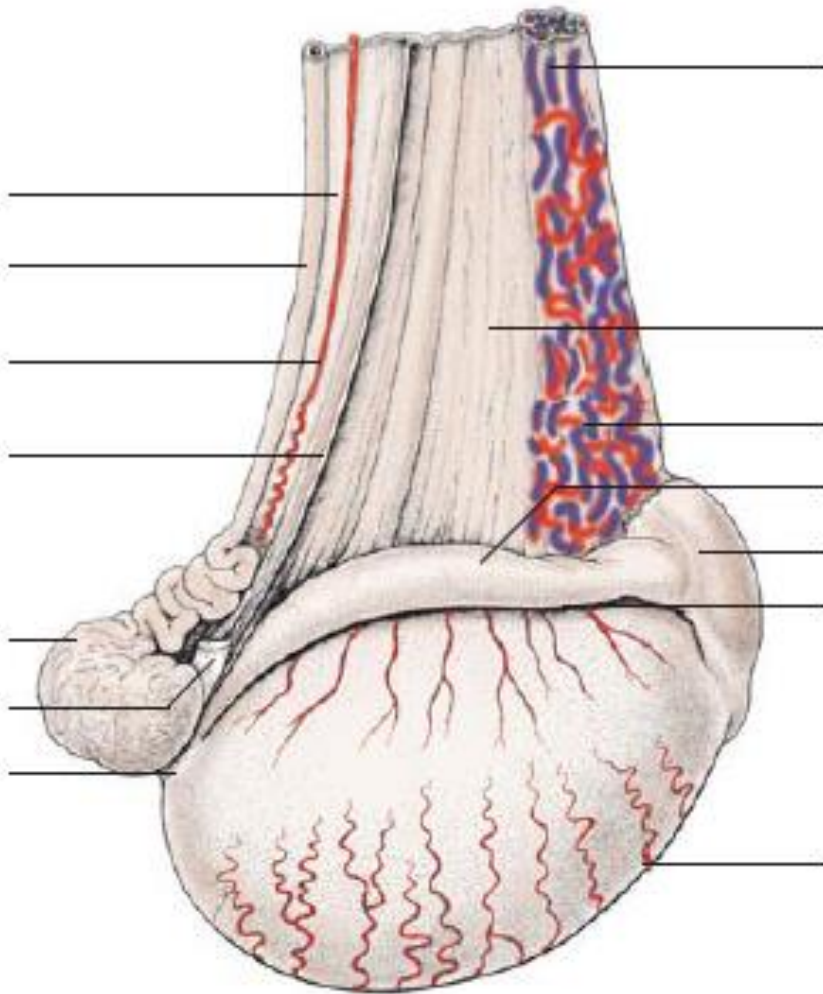
- 1 e 2. Ducto deferente
3. Vascularização Testicular
4. Mesórquio
5. Cabeça do Epidídimo
6. Testículo
7. Ligamento da Cauda do Epidídimo
8. Cauda do Epidídimo
9. Corpo do Epidídimo

Superfícies medial e lateral  
Margens livre e epididimária  
Extremidades capitata e caudata

Epidídimo:

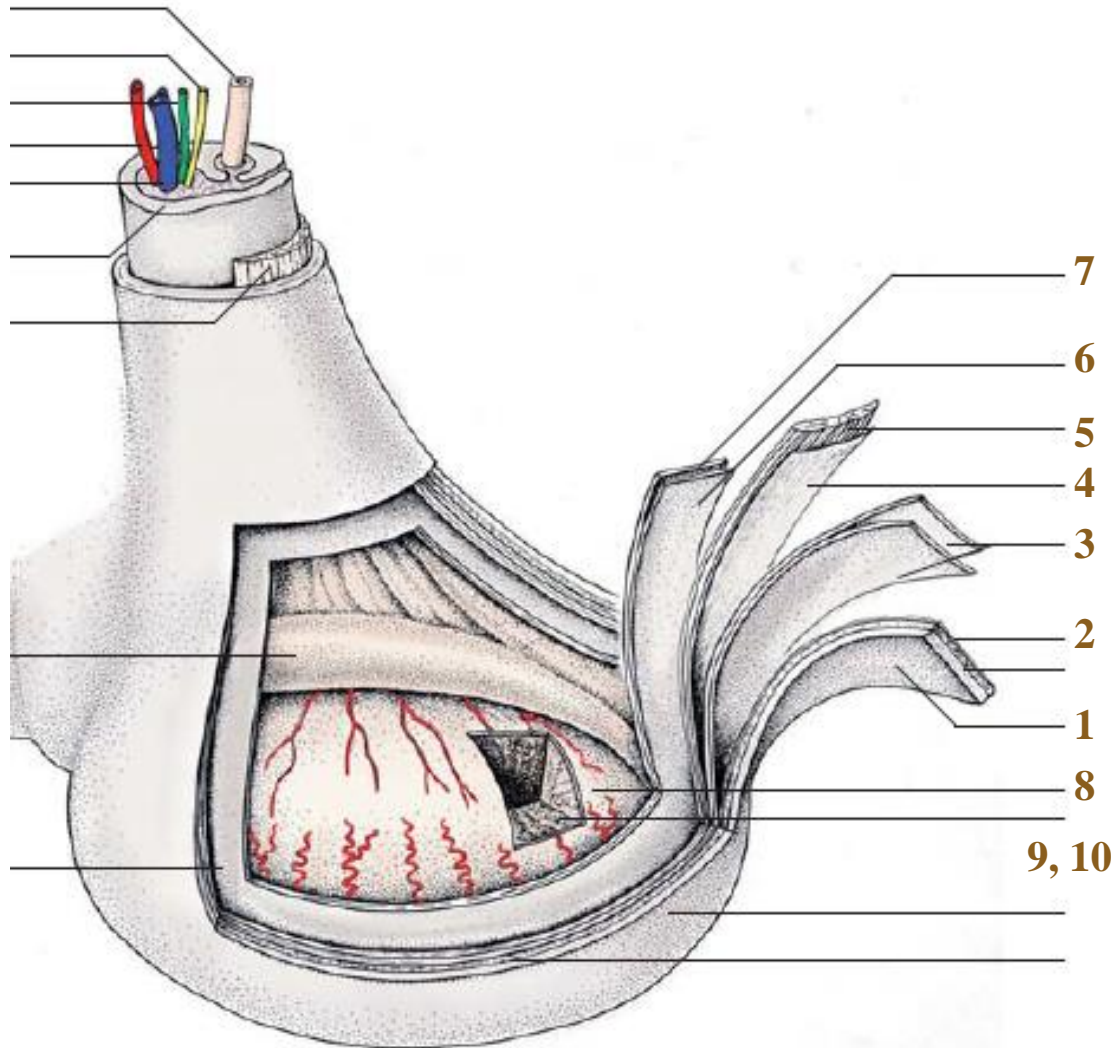
- Cabeça [dúctulos eferentes]
- Corpo
- Cauda [ducto deferente]
  - Lig. da cauda do epidídimo

# ANATOMIA DO FUNÍCULO ESPERMÁTICO



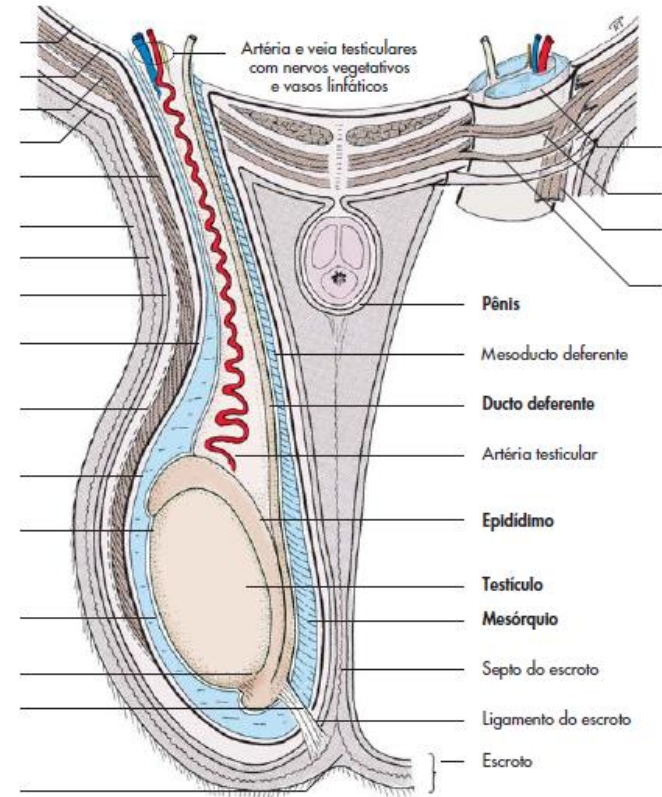
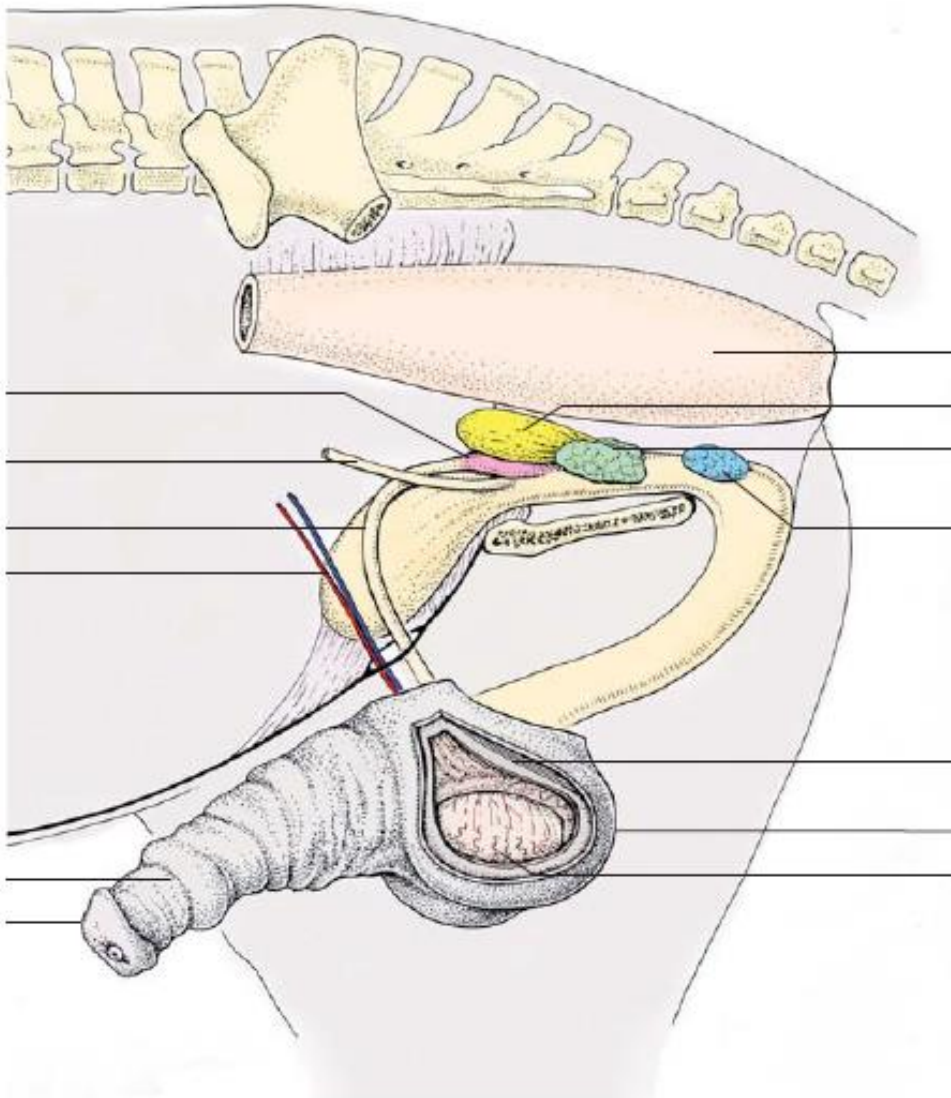
Artéria testicular [aorta pt. abdominal]  
Plexo pampiniforme [veia testicular]  
Plexo neural testicular  
Ducto deferente  
M. cremáster  
Vasos linfáticos

# ENVOLTÓRIO TESTICULAR

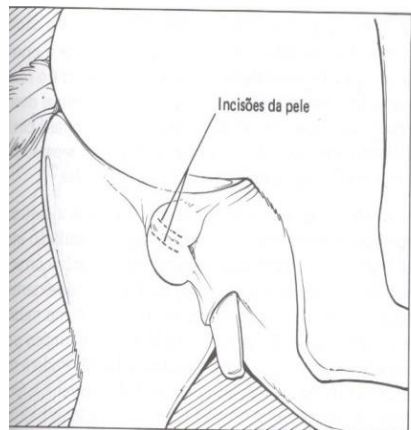


1. Pele
2. T. Dartos \*\*
3. Fáscia espermática ext.
4. Fáscia cremastérica
5. M. cremáster
6. Fáscia espermática int.
7. Lâmina parietal da t. vaginal\*
8. Lâmina visceral da t. vaginal\*
9. T. albugínea
10. Parênquima testicular

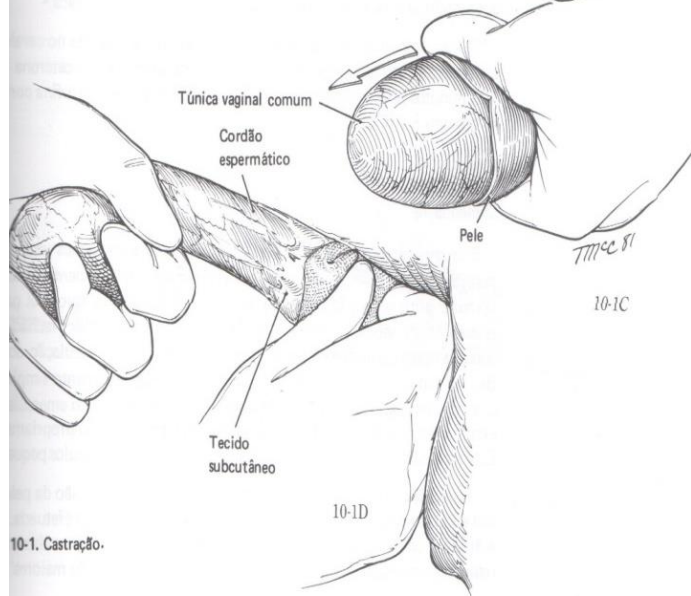
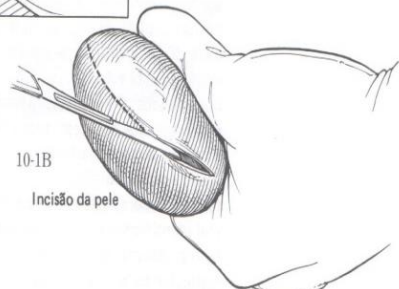
# ANATOMIA ESCROTAL



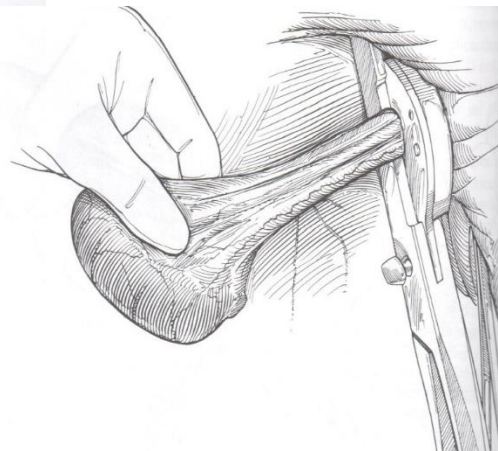
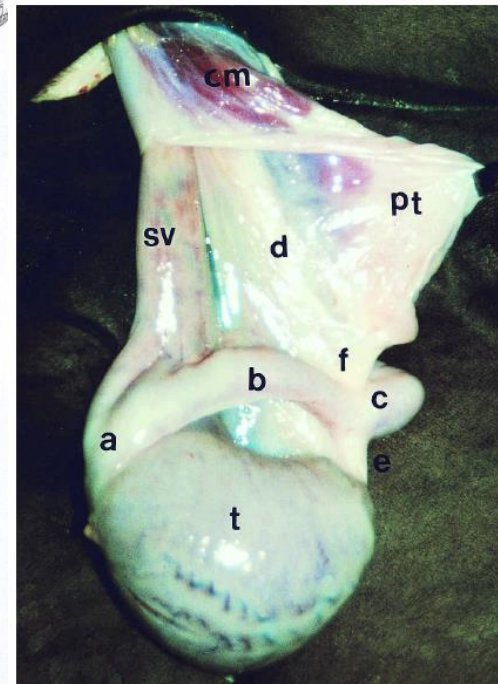
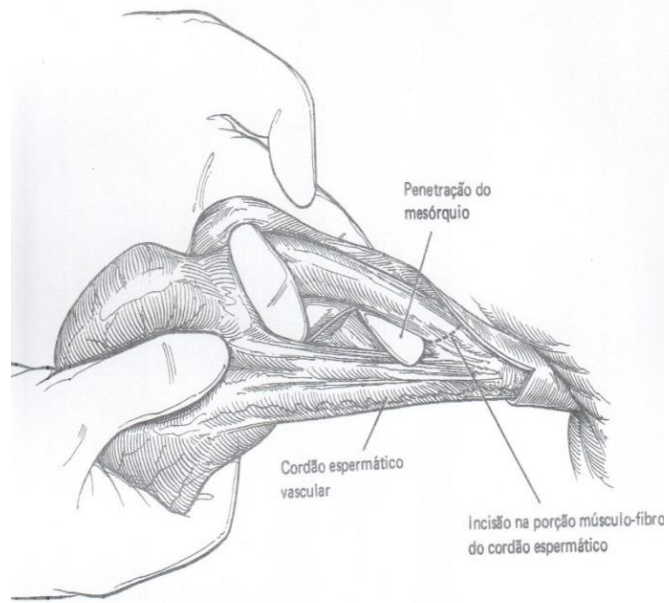
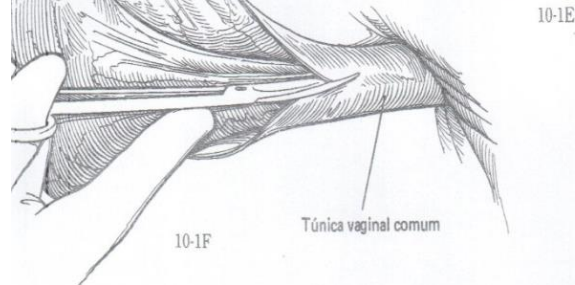
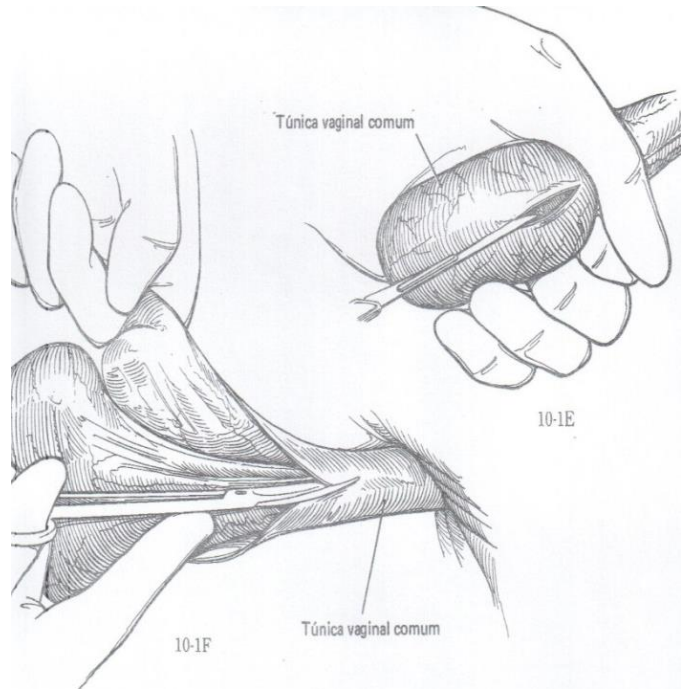
Septo mediano do escroto [T. Dartos]  
Rafe do escroto  
Canal inguinal  
Lig. escrotal



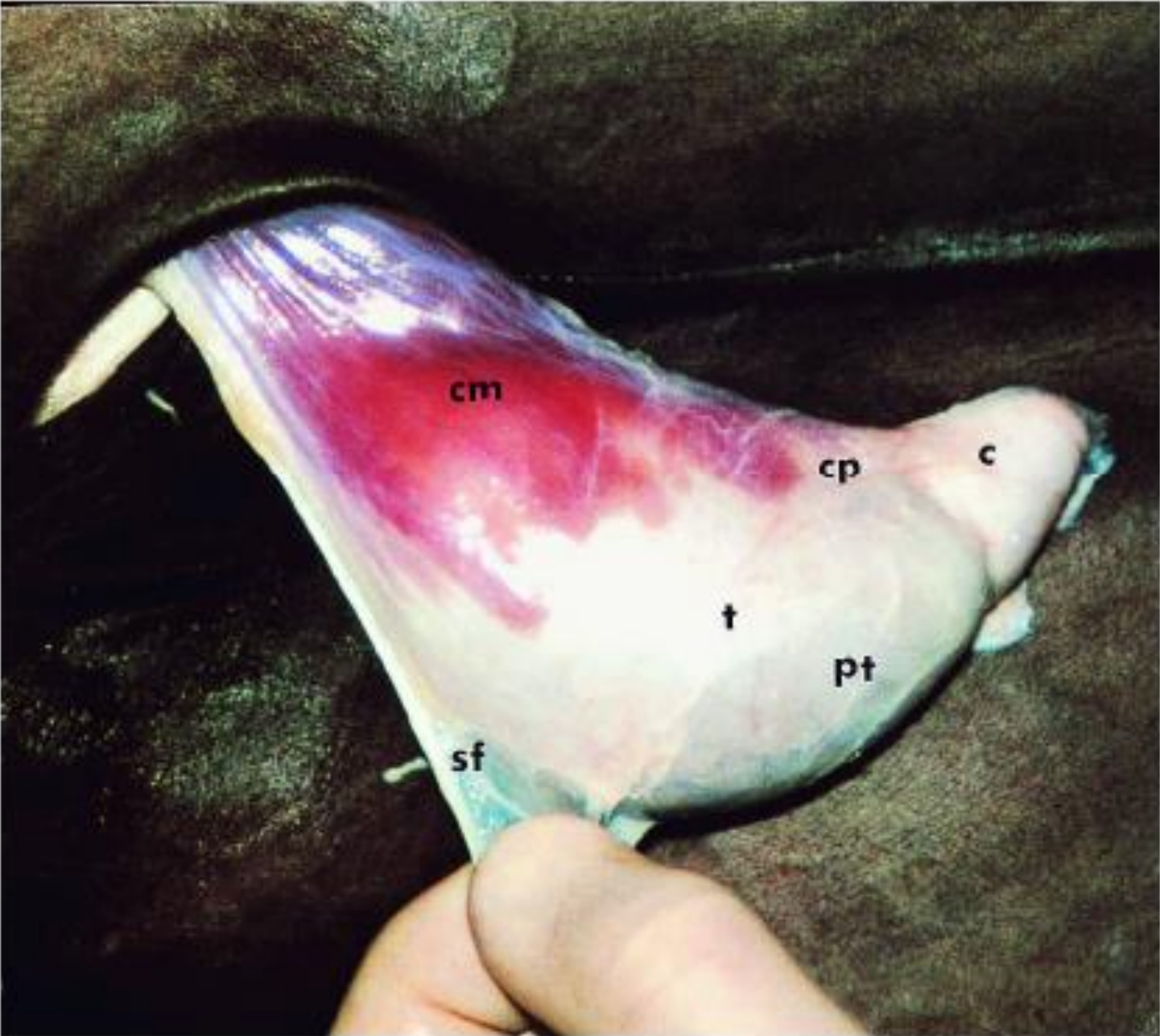
10-1A



10-1. Castração.

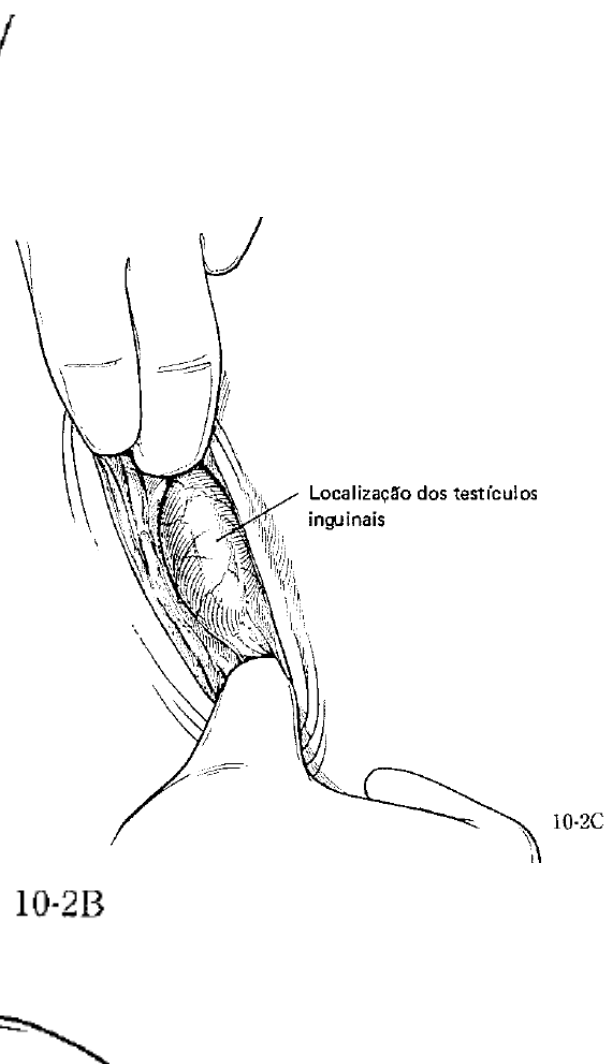
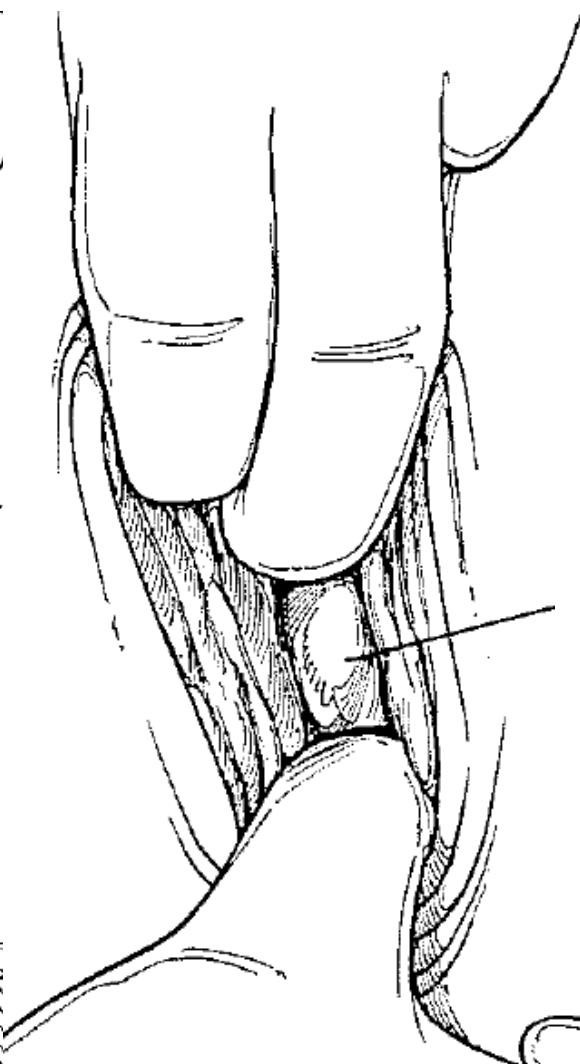
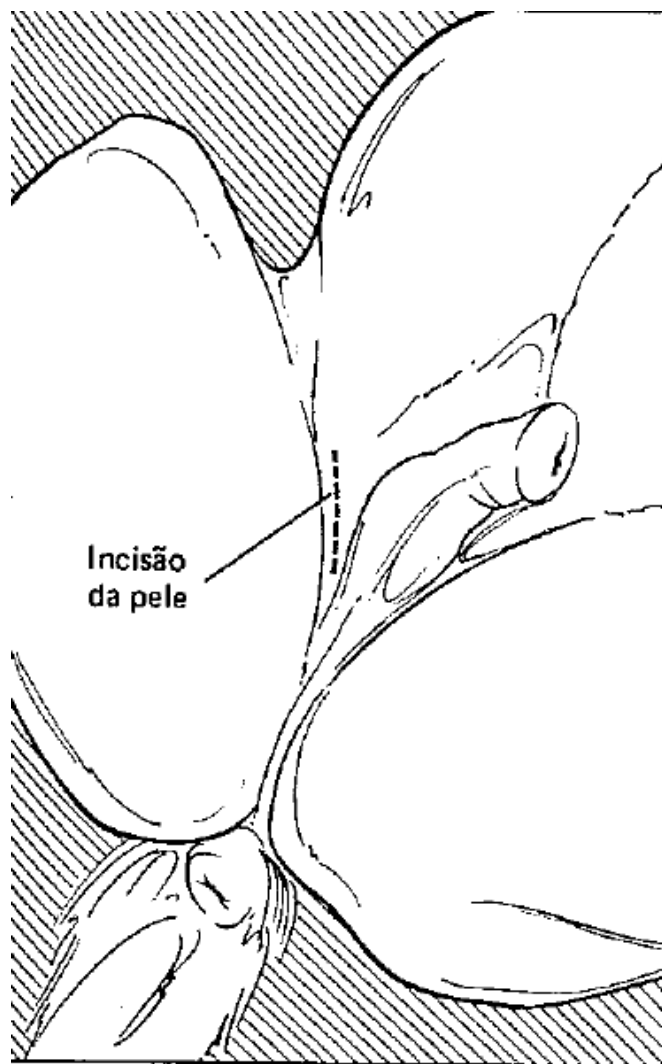






Searle et al. (1999)

# ABORDAGEM INGUINAL PARA CRIPTORQUIDAS



10-2B

# COMPLICAÇÕES



# COMPLICAÇÕES



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