

INGUINAL HERNIA  
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PAEDIATRIC SURGEON

# HERNIA -definition

‘Hernia’ is a Latin word – ‘a **tear or rupture**’

A hernia is a protrusion of a viscus or part of a viscus through an abnormal opening in the walls of its containing cavity.

- 75% of hernias occur in the groin (inguinal, femoral).
- Incision and ventral hernias- 10%.
- umbilical 3% and others about 3%.

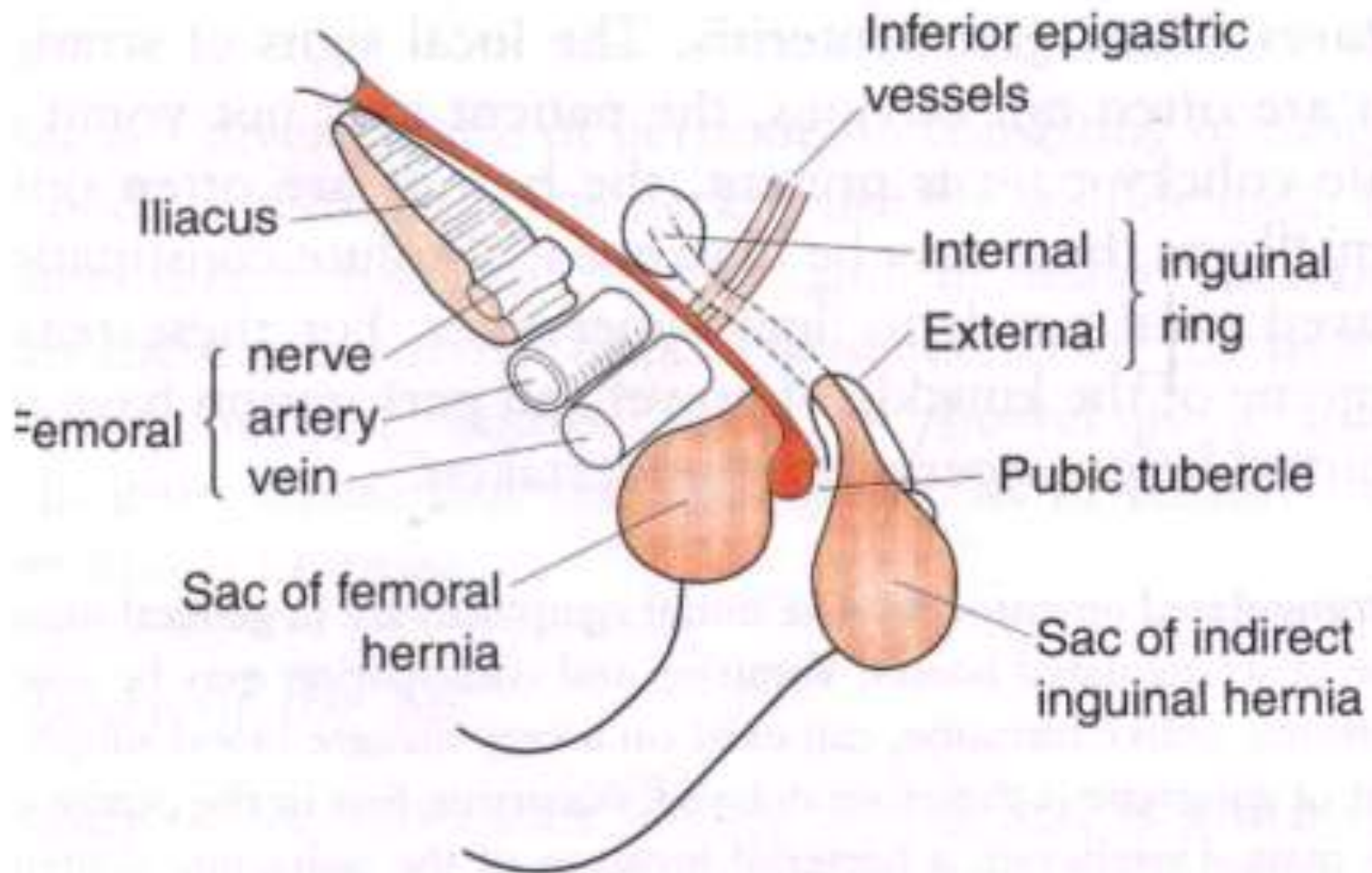
# Anatomic distribution of Groin hernia

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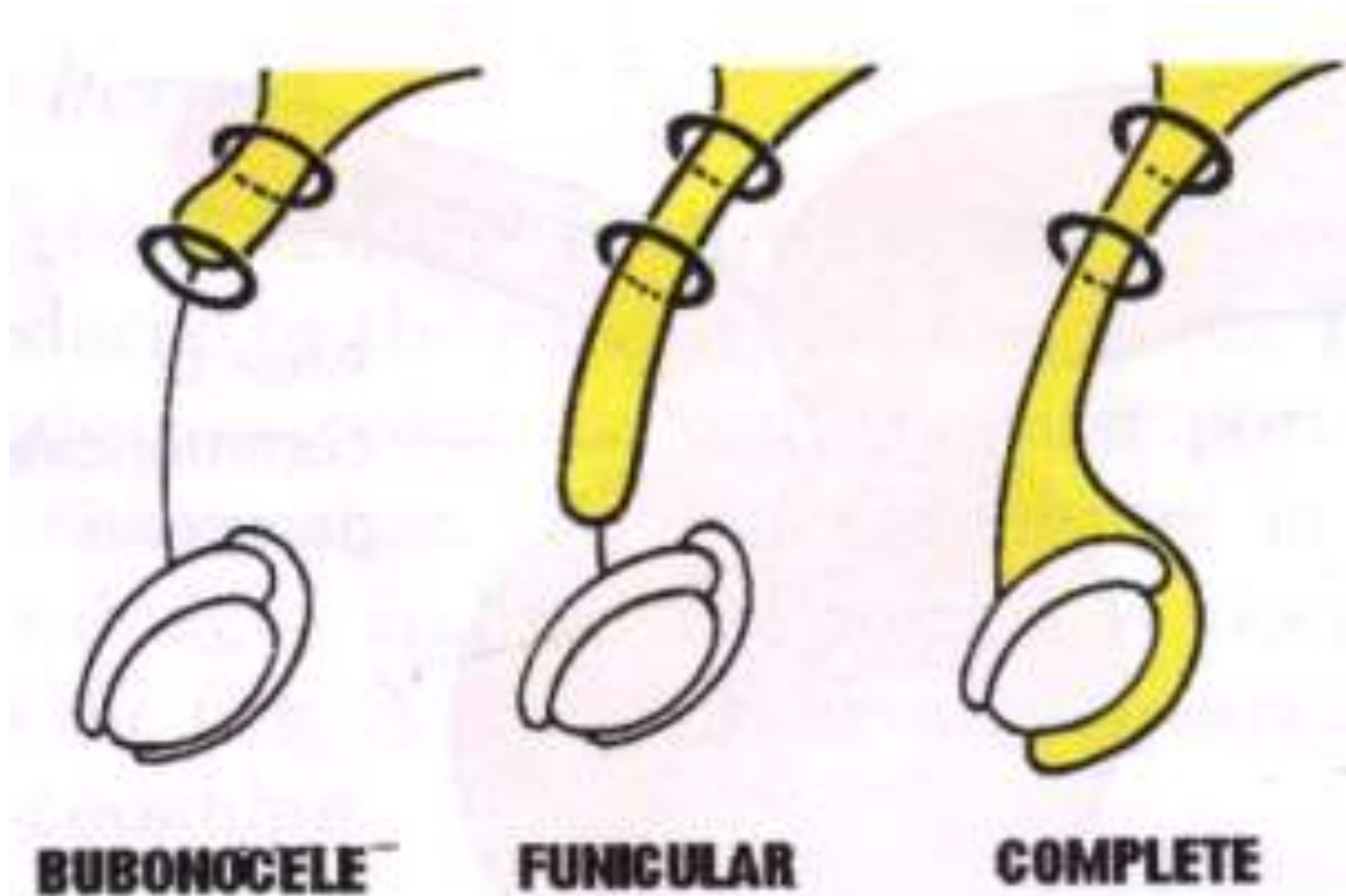
- Right - 60%
- Left - 30%
- Bilateral - 10%



# Groin hernia's



# Indirect inguinal hernia-types



# Presentation

- Mostly incidental finding.
- Intermittent bulge in the groin and scrotum, esp. with crying or straining.
- A reliable history is sufficient to make the diagnosis, even if hernia cannot identify.

# Inguinal canal

- 1.5 inches (4 cm) long in the adult.
- Extends from the deep inguinal ring, downward and medially to the superficial inguinal ring.
- It lies parallel to and immediately above the inguinal ligament.
- The deep inguinal ring, an oval opening in the fascia transversalis, lies about 0.5 in. (1.3 cm) above the inguinal ligament midinguinal point.
- In the **newborn child**, the deep ring lies almost directly posterior to the superficial ring so that the canal is considerably shorter at this age.

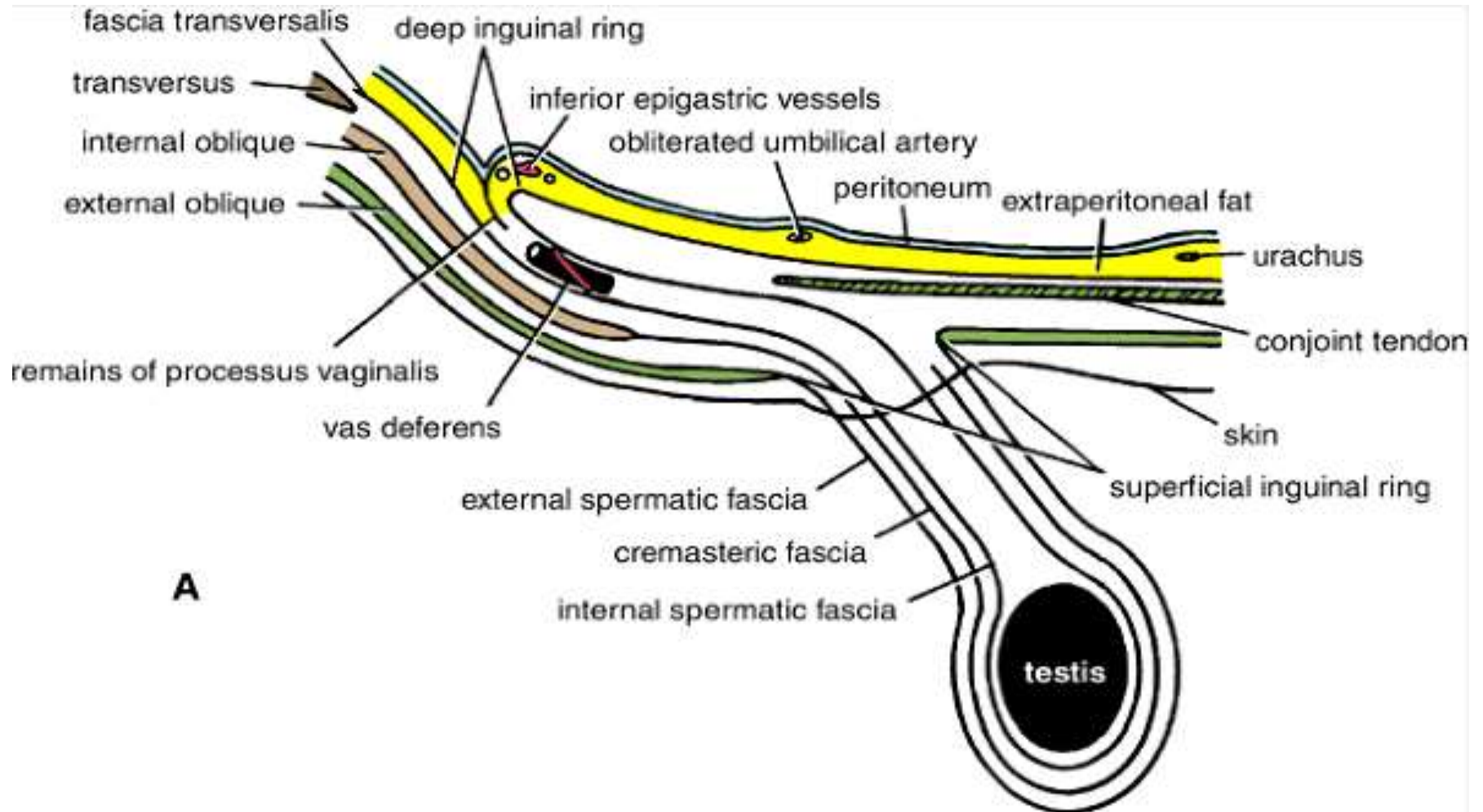


- The superficial inguinal ring is a triangular shaped defect in the aponeurosis of the external oblique muscle and lies immediately above and medial to the pubic tubercle.
- ▣ The margins of the ring, sometimes called the crure, give attachment to the external spermatic fascia.

# Walls of the Inguinal Canal

- **Anterior wall:** External oblique aponeurosis, reinforced laterally by the internal oblique.
- **Roof or superior wall:** Arching lowest fibers of the internal oblique and transverses abdominus muscles.
- **Posterior wall:** Fascia transversals laterally, reinforced medially by Conjoint tendon.
- **Floor or inferior wall:** Upturned lower edge of the inguinal ligament and, at its medial end, the lacunar ligament

# Inguinal canal



# Contents of the hernia

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- Bowel
- Omentum
- In females - Ovary and Fallopian tubes

# Differential Diagnosis

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- **Acute Conditions**
  - **Testicular Torsion**
  - **Epididymitis**
- **Nonacute Conditions**
  - **Hydrocele**
  - **Varicocele**
  - **Spermatocele**
  - **Epididymal Cyst**
  - **Testicular Tumor**

# Operations for hernia

- **Herniotomy**: high ligation of the hernial sac in infants & children
- **Herniorrhaphy** : herniotomy+ tissue repair
- **Hernioplasty** :
  - cases of indirect hernia in pt.'s with poor muscle tone
  - all cases of direct hernia
  - recurrent hernia

**These can be performed open or laparoscopically.**

# Anesthesia

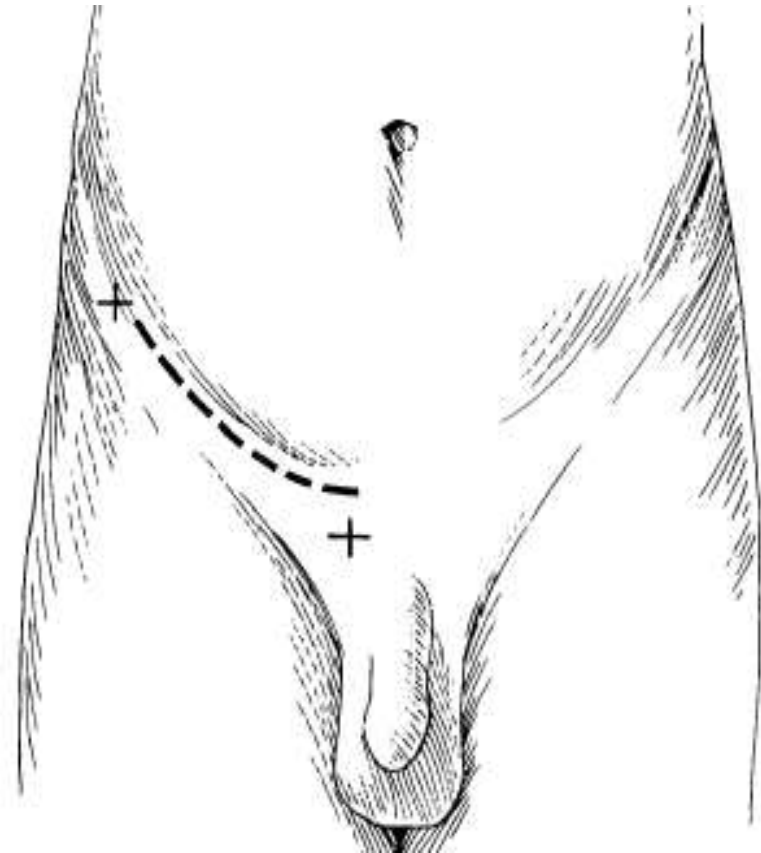
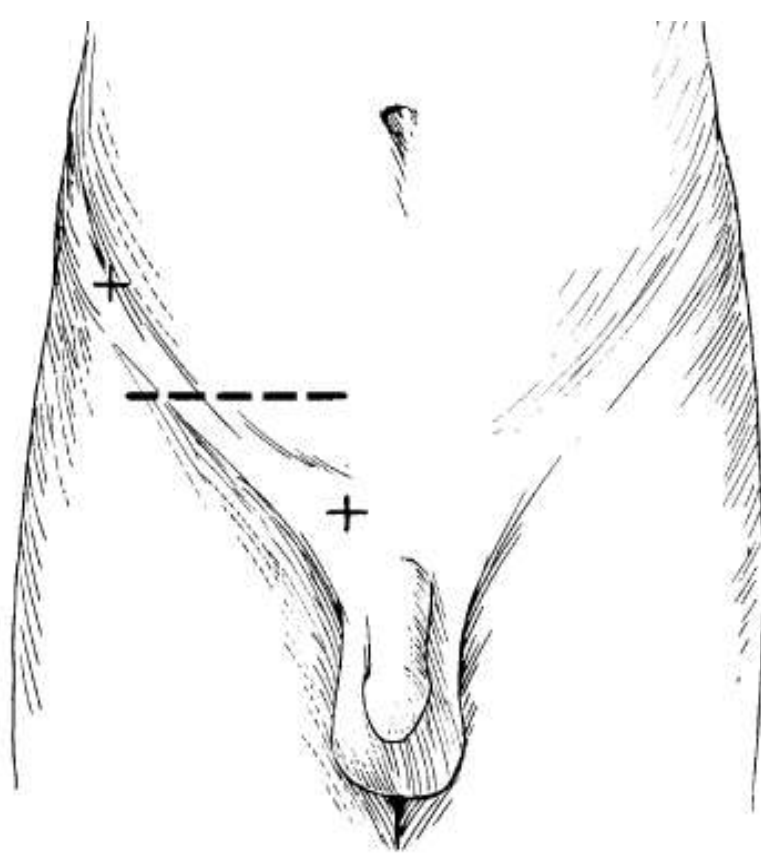
- General
- Regional (such as spinal or epidural)
- Local anesthesia.



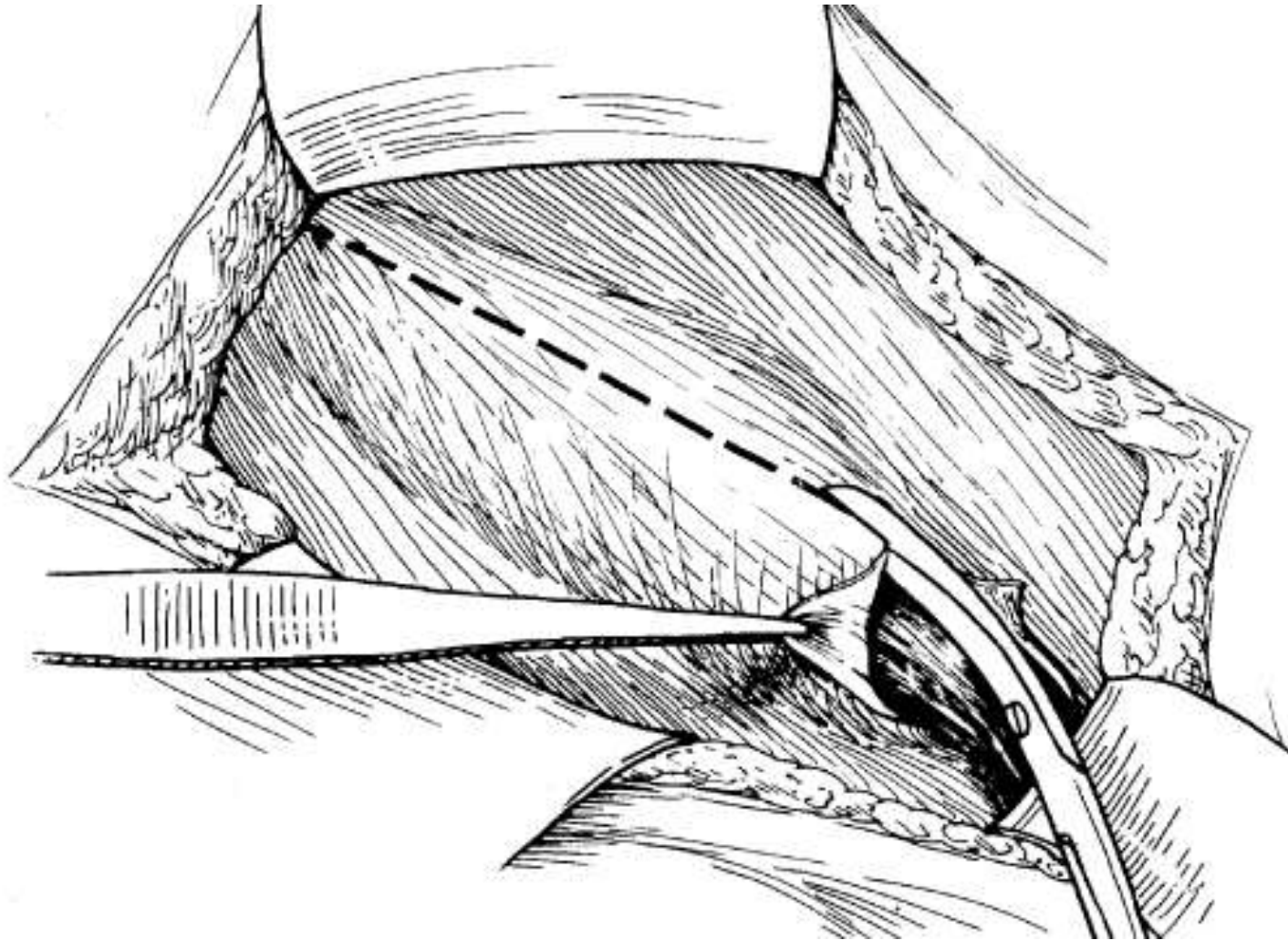
# Steps of Herniotomy



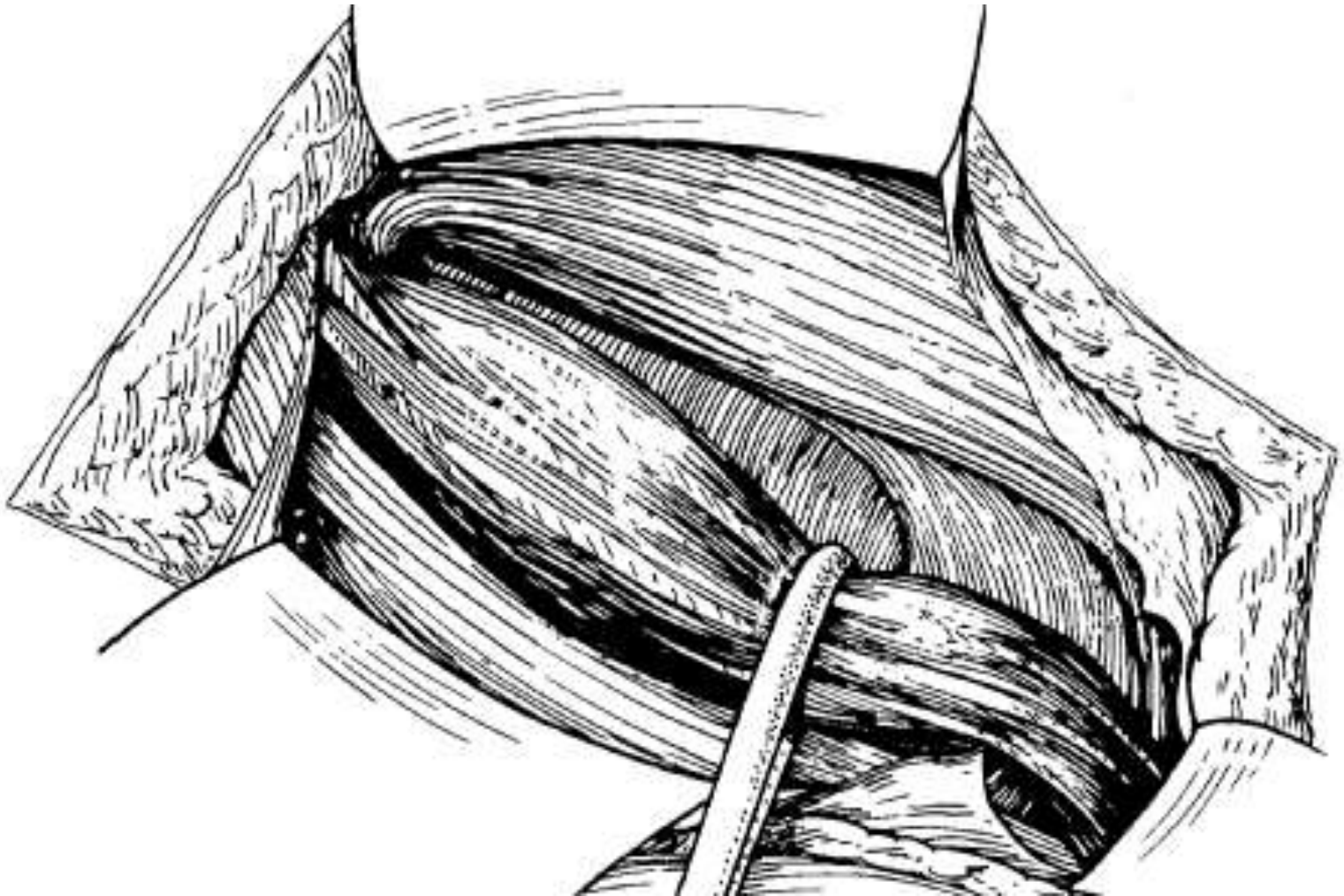
# Transverse / Curved skin crease incision.



The aponeurosis of the external oblique is incised along the direction of its fibers.

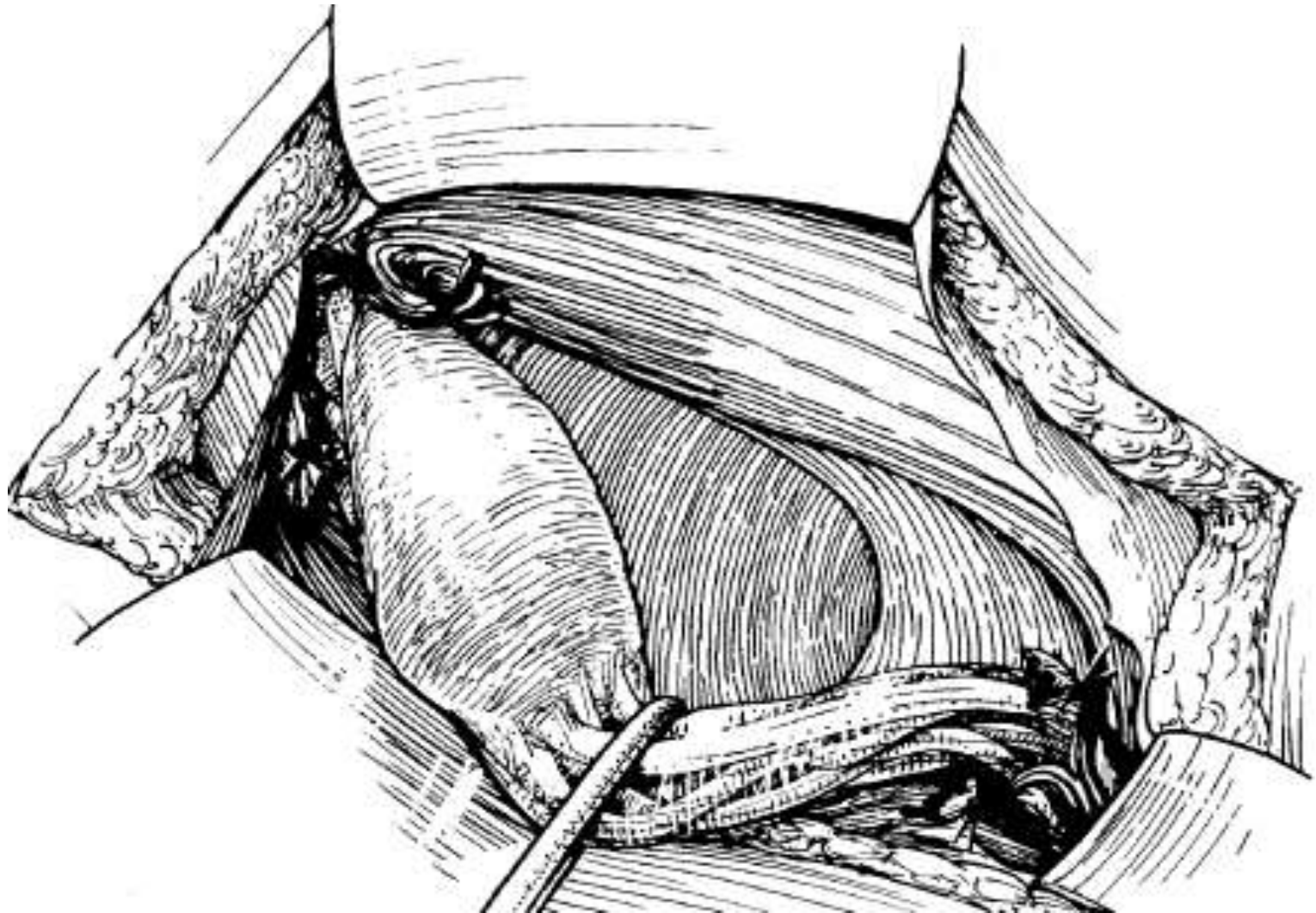


The inguinal canal is exposed and the spermatic cord mobilized.

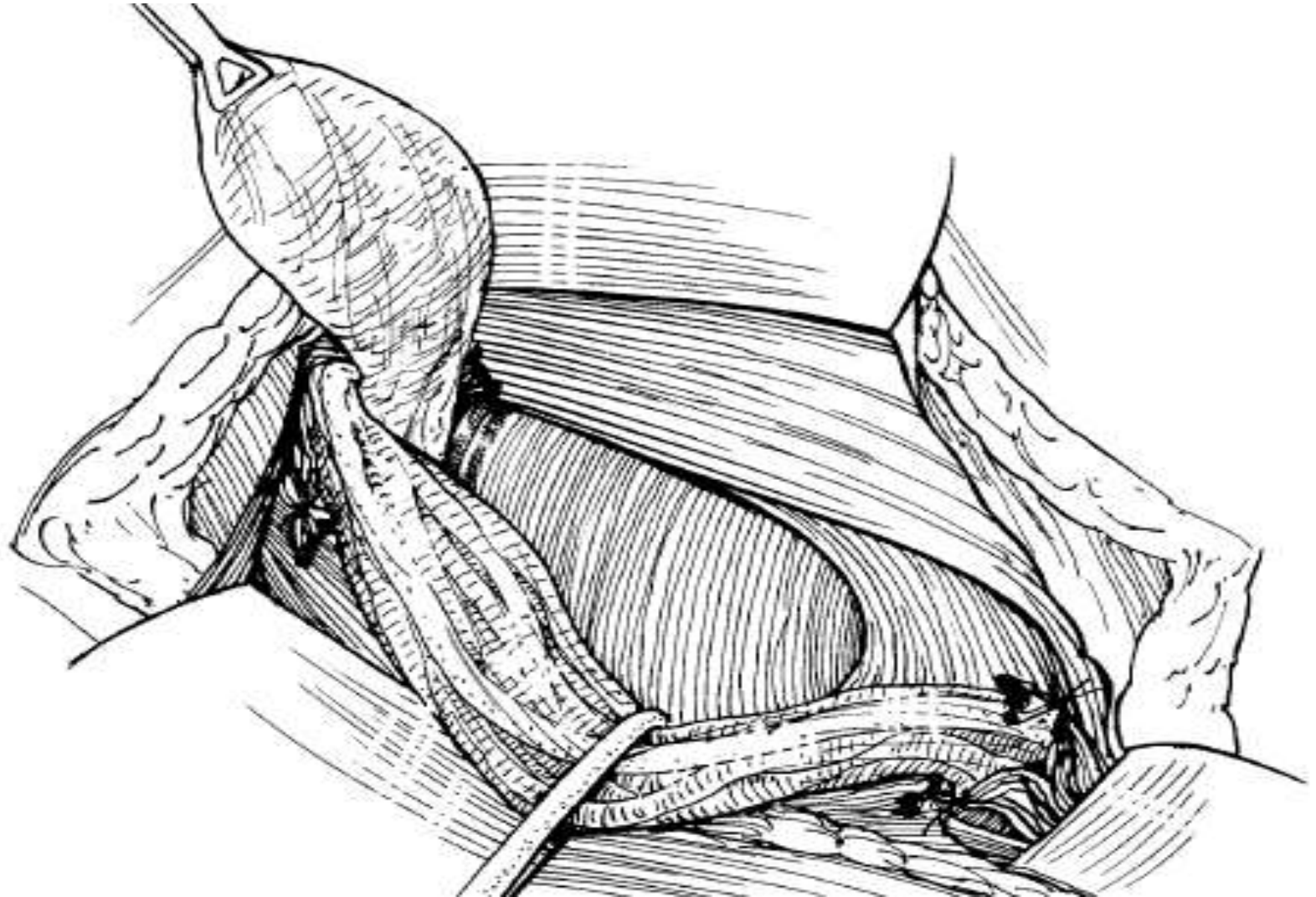




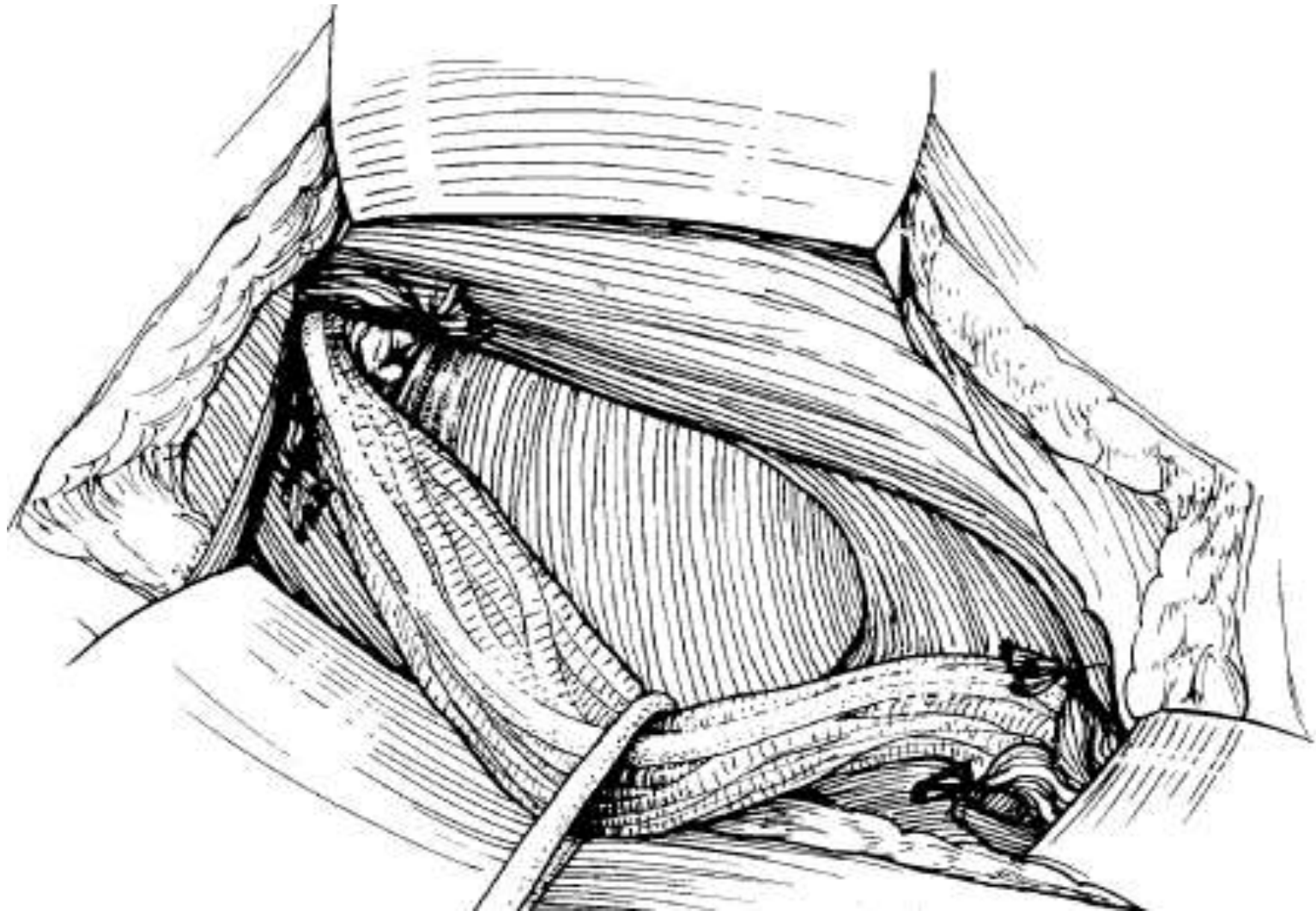
Internal ring and posterior wall of the canal have been defined.



A medium-sized sac has been dissected free of the cord elements.

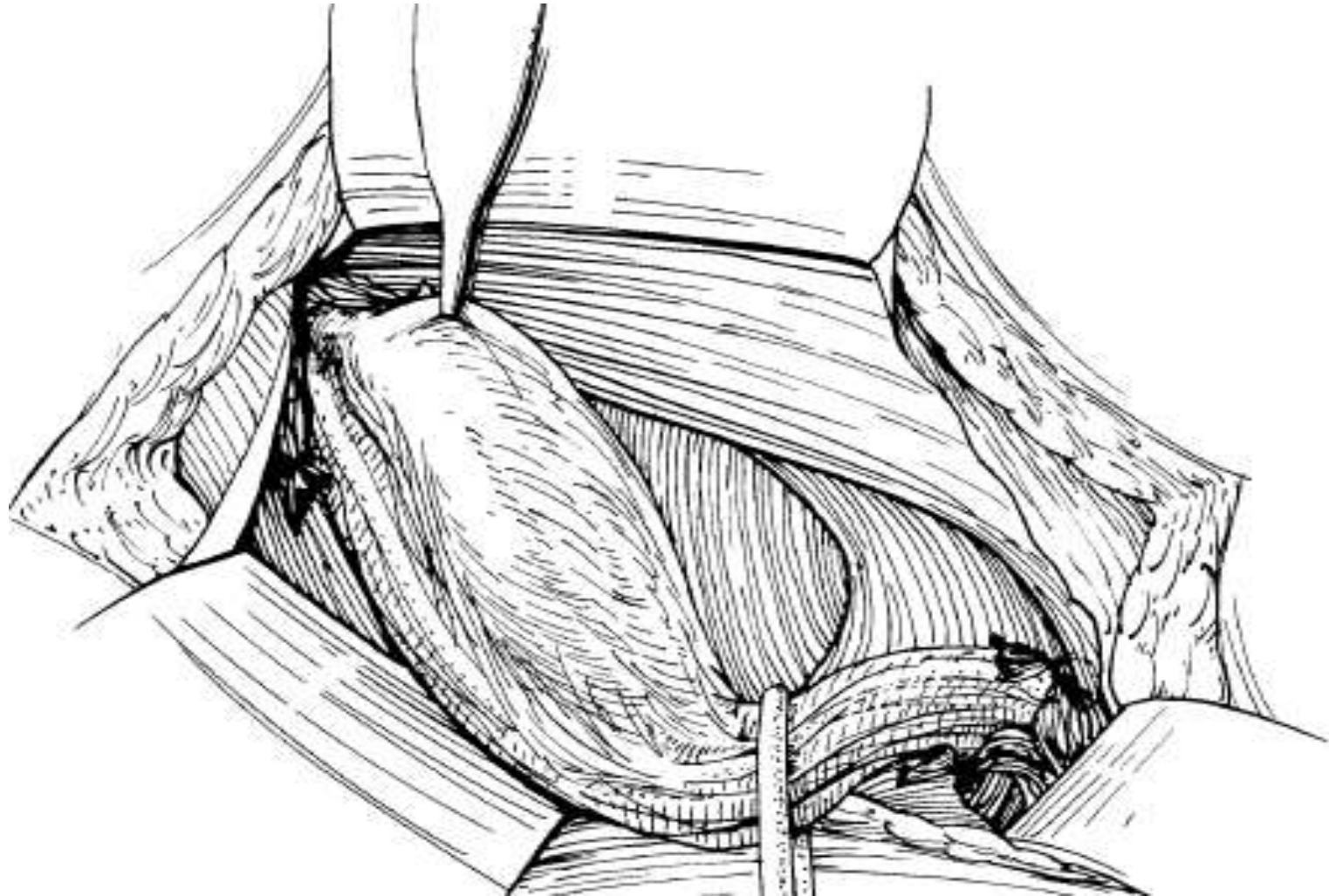


The sac has been invaginated.

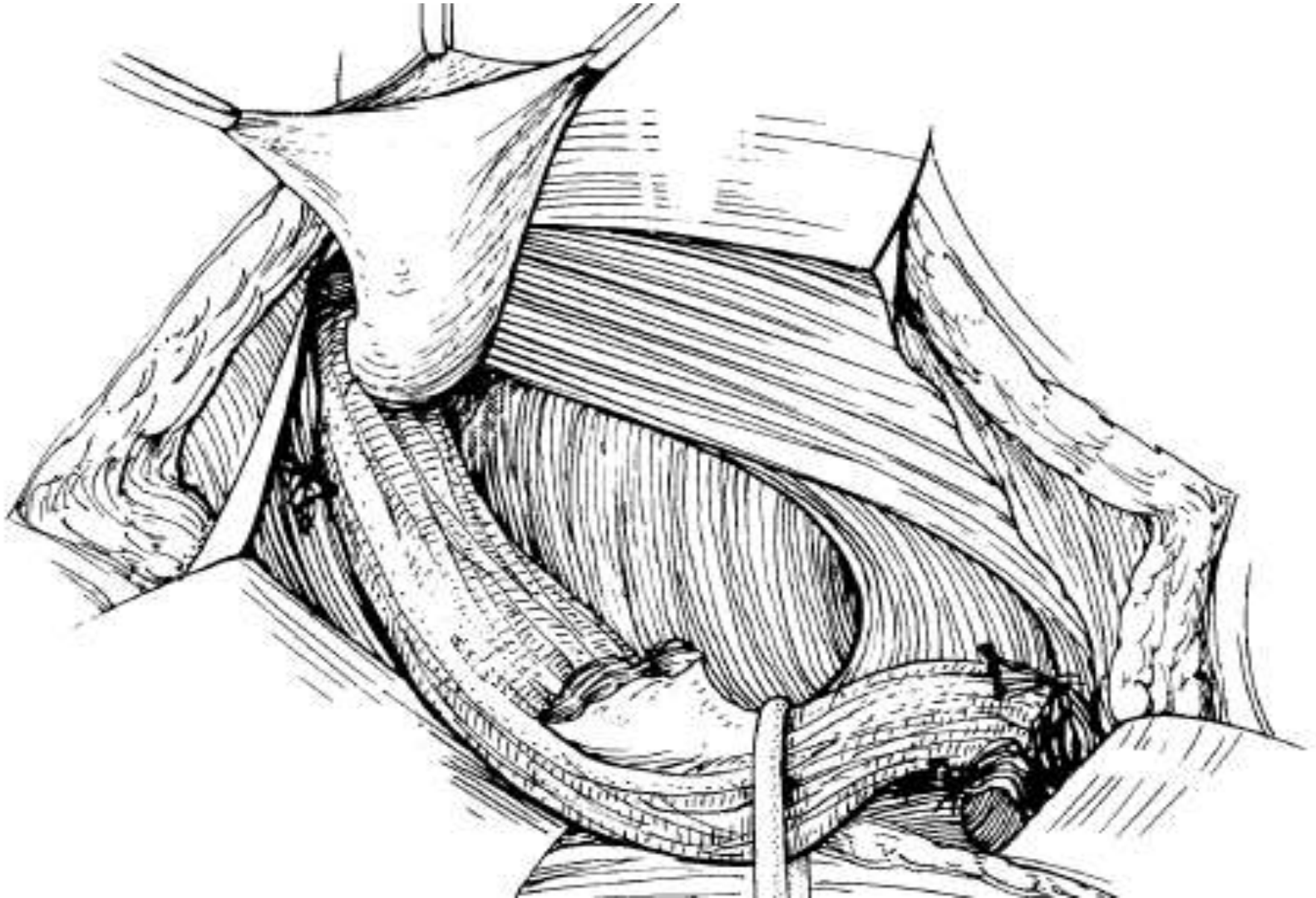




A long or complete sac is being dissected free close to the internal ring.



The sac has been transected.





# Complications

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- bleeding
- Recurrence
- Infection
- Injury to the cord structures
- Iatrogenic cryptorchidism



THANKS