

Surgical Options and Treatment for Perineal Hernias

Rebecca Wolf, VMD
Practice limited to surgery





Perineal Hernias

- Definitions and anatomy
- Clinical presentation
- Pathogenesis
- Surgical Treatment
- Postop Care and Complications



Definitions and Anatomy

- Perineal Hernia:
 - A failure of the muscular pelvic diaphragm to support the rectal wall, resulting in stretching and deviation of the rectum.
 - Pelvic +/- abdominal contents herniate into the deviation



Definitions and Anatomy

- Swelling is apparent ventrolateral to the anus
- Caudal projection of the anus is apparent if herniation is bilateral.







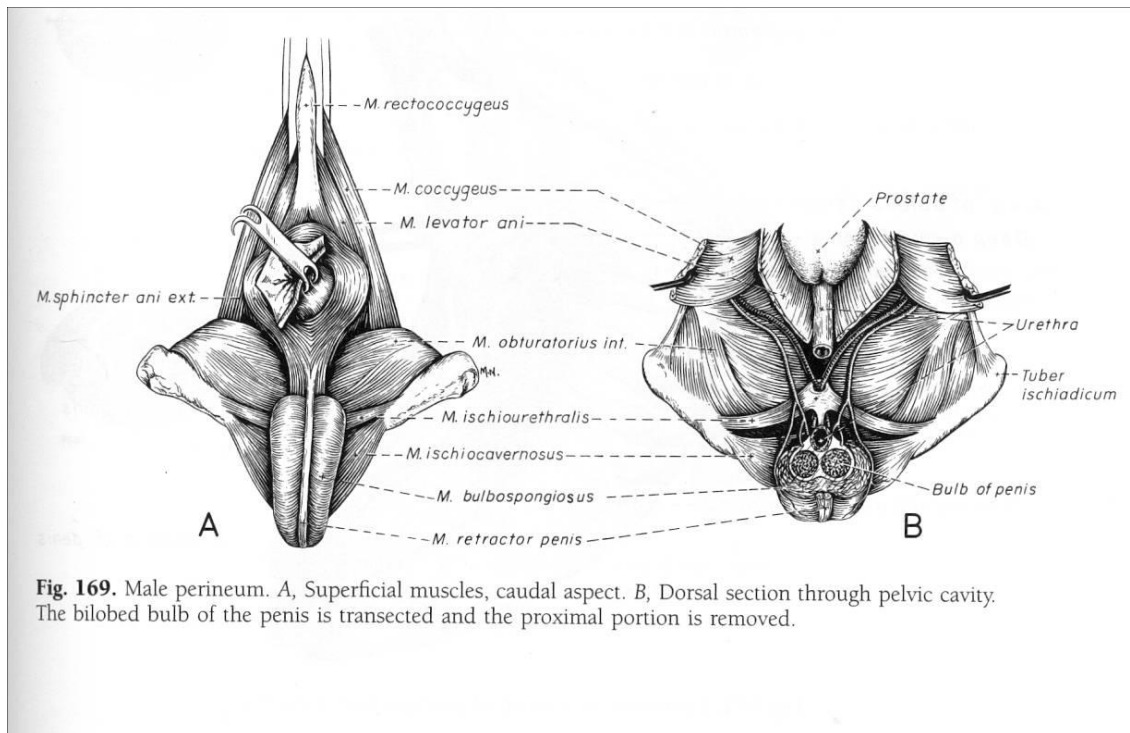
Definitions and Anatomy

- Perineum
 - Part of the body wall that covers the pelvic outlet and surrounds the anal and urogenital canals.
 - Boundaries
 - 1st caudal vertebra dorsally
 - Sacrotuberous ligament laterally
 - Ischial tuberosity/ischial arch ventrally



Definitions and Anatomy

- Pelvic diaphragm
 - Coccygeal and levator ani muscles



Definitions and Anatomy

- Internal pudendal artery and vein
- Pudendal nerve
 - Caudal rectal nerve only innervation to external anal sphincter



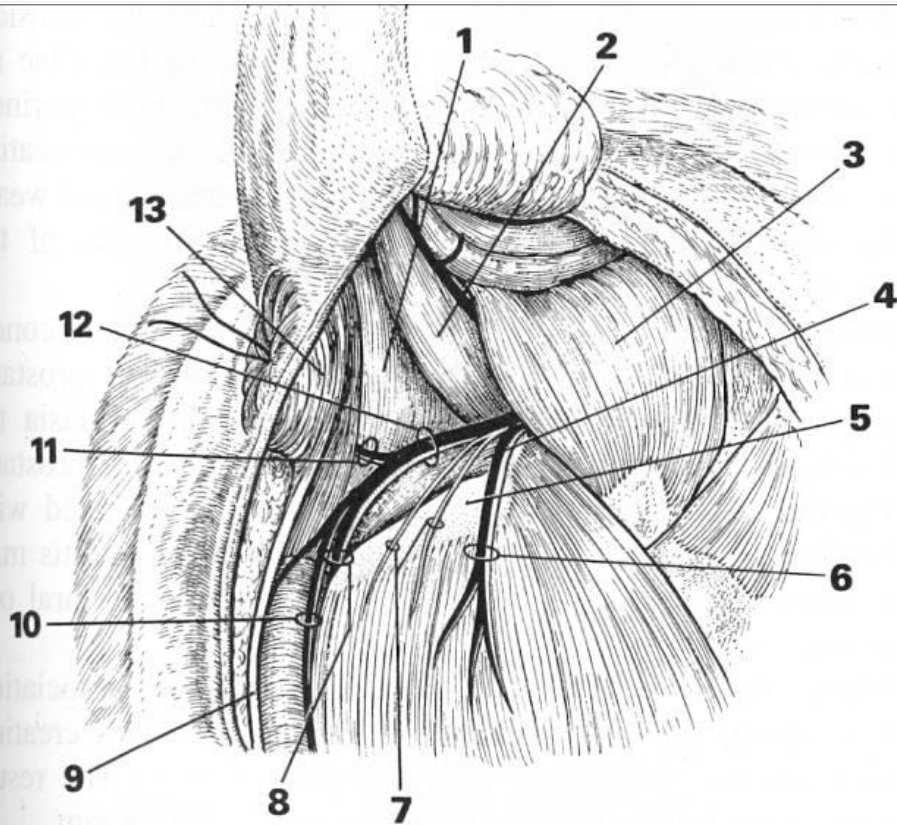


Figure 34-1. Musculature, arteries, and nerves of the perineal region of the male dog (caudolateral aspect, right side): 1, levator ani muscle; 2, coccygeal muscle; 3, superficial gluteal muscle; 4, internal obturator muscle; 5, ischial tuberosity; 6, branch of caudal gluteal artery and caudal cutaneous femoral nerve; 7, perineal nerves; 8, artery of penis and dorsal nerve of penis; 9, retractor penis muscle; 10, ventral perineal artery and (main) superficial perineal nerve; 11, caudal rectal artery and nerve; 12, internal pudendal artery and pudendal nerve; 13, external anal sphincter.



Clinical Presentation

- Prevalence in dogs
 - 0.1 - 0.4% of reported hospital accessions
- 7-9 years of age
- Boston Terrier, Boxer, Pekingese
- Intact Males >>> neutered males, females



Clinical Presentation

- Can be unilateral or bilateral
 - If unilateral, contralateral side is often weak



Clinical Presentation

- Reducible perineal swelling
- Constipation, obstipation, tenesmus, dyschezia
- Straining to urinate
- Leaking stool or urine +/- with blood
- Obvious “bump” visible to owner



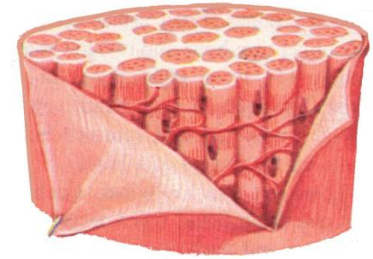
Clinical Presentation

- Physical exam findings
 - Rectal exam may be painful, difficult due to trapped stool or bladder
 - Loss of tight band lateral to rectum
 - Palpation reveals excess laxity
 - Enlarged prostate



Pathogenesis

- Atrophy
 - Neurogenic
 - Senile
 - Underdevelopment of muscles
- Myopathy
- Hormonal
 - Decreased number of androgen receptors



Pathogenesis

- Prostatic involvement
 - Direct causal relationship is not supported
 - Prostatic enlargement is contributing factor
 - Relaxin from prostatic cysts
 - BPH can increase tenesmus
 - Increased intraabdominal pressure associated with voiding
 - Gradual breakdown of muscles



Pathogenesis

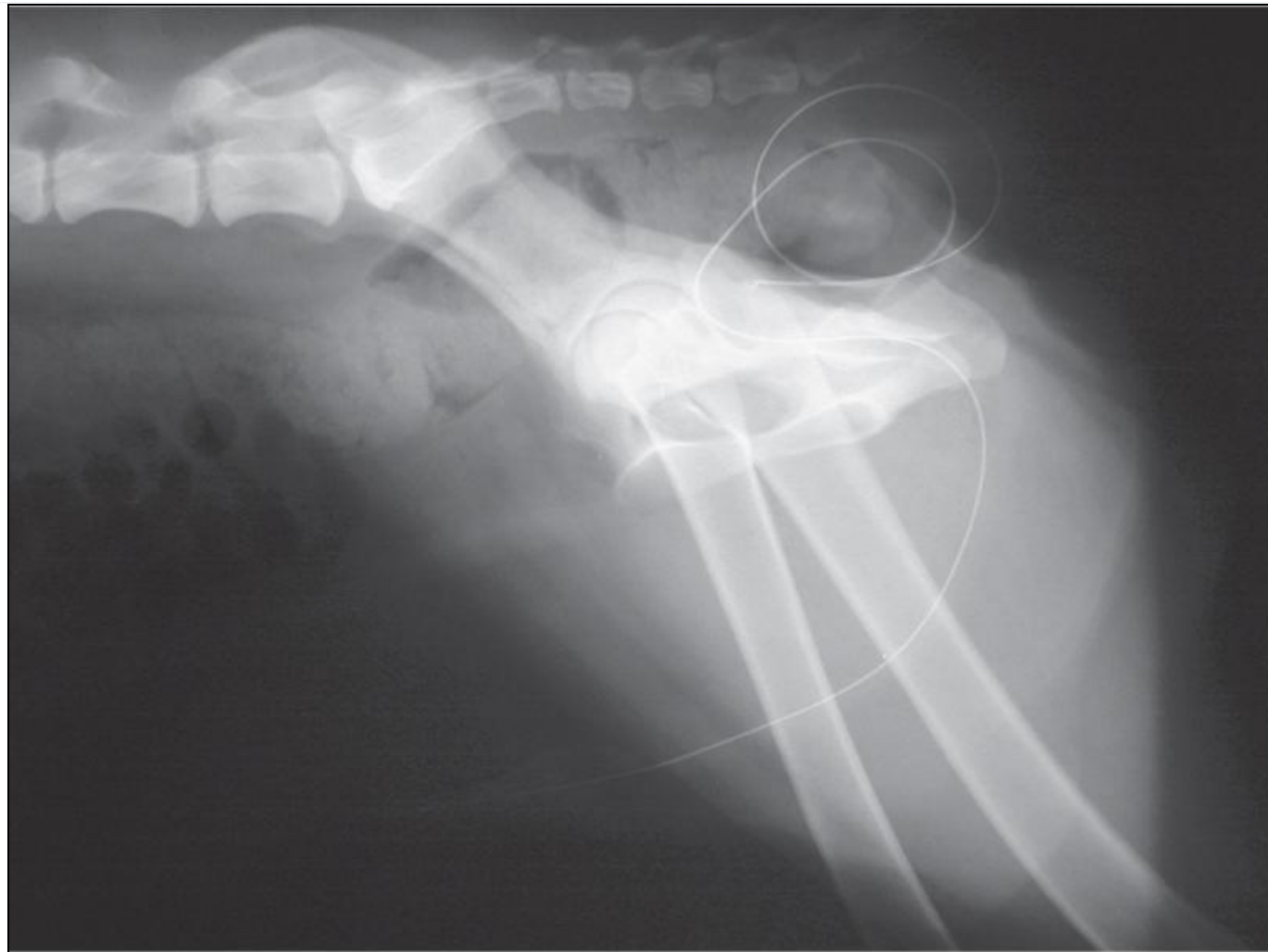
- Cats
 - Megacolon
 - Determine 1^o problem - megacolon vs. PNH
 - PU surgery
 - Pelvic fractures



Treatment

- Emergency treatment for bladder entrapment
 - Catheterization
 - Perineal cystocentesis
 - Empty bladder completely
 - Keep catheterized until surgery can be performed
 - Correct electrolyte/acid-base/fluid imbalances





Treatment

- Conservative treatment
 - Medical/Dietary - adjunctive to surgery!
 - Conservative treatment alone is unsuccessful at controlling clinical signs



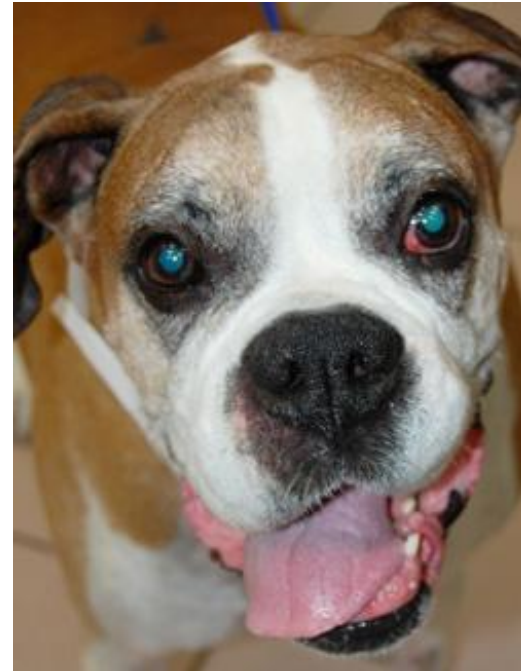
Treatment

- Conservative treatment
 - Medical/Dietary - adjunctive to surgery!
 - Conservative treatment alone is unsuccessful at controlling clinical signs
 - High fiber diet
 - Increased moisture in diet
 - Bulk-forming laxatives
 - Castration



Treatment

- Surgical Repair
- Preop
 - Geriatric patients
 - Prostate size/symmetry
 - Herniated structures



Treatment

- Further preoperative workup
 - Ultrasound evaluation of hernial sac
 - Abdominal radiography
 - Cystography
 - Barium series

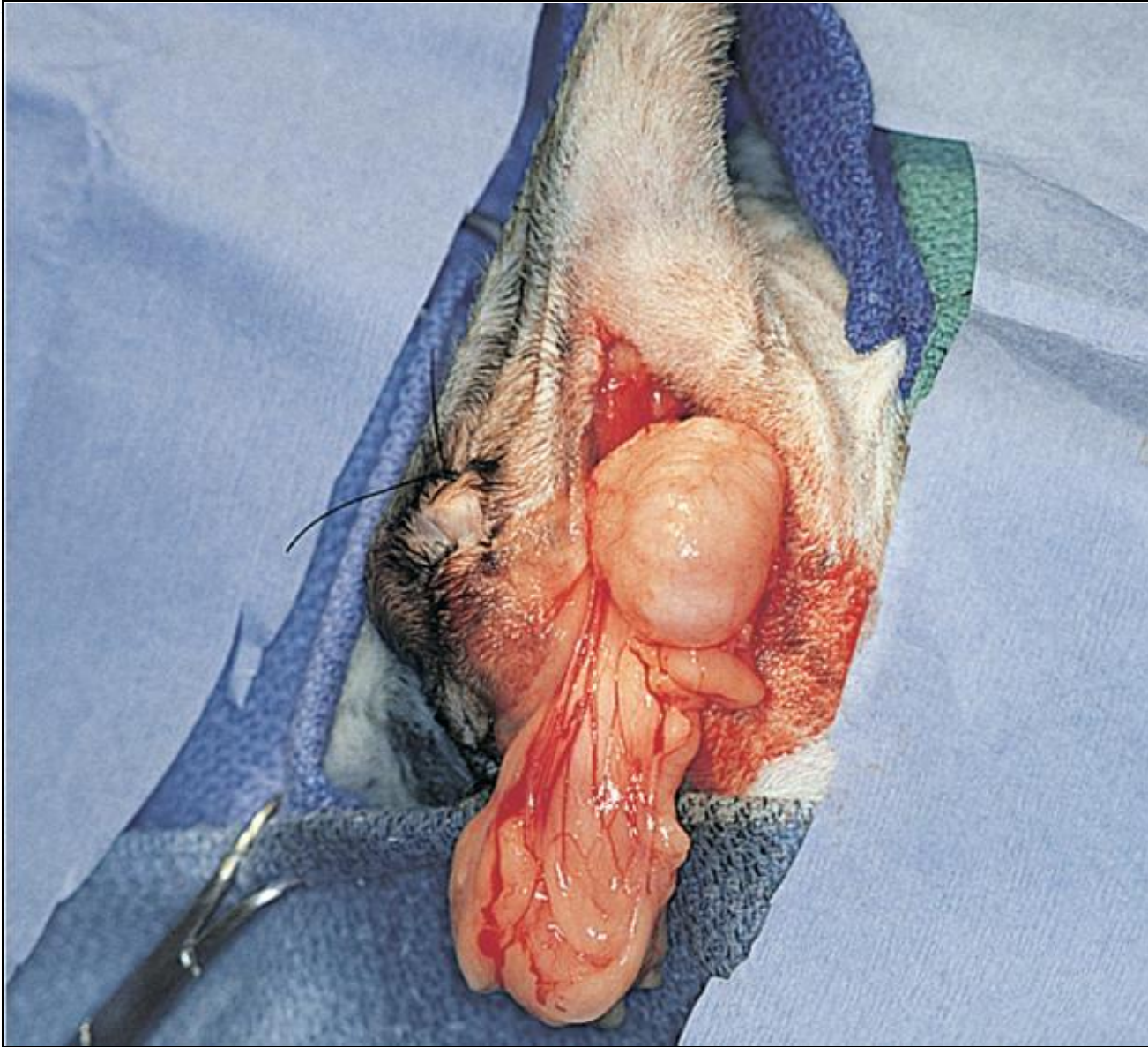


Treatment

- Surgical repair
 - Sternal recumbency - cushioning important
 - Blunt dissection to open hernial sac
 - Herniorraphy
 - Traditional – Suture defect closed
 - Internal Obturator Transposition
 - Neuter intact males





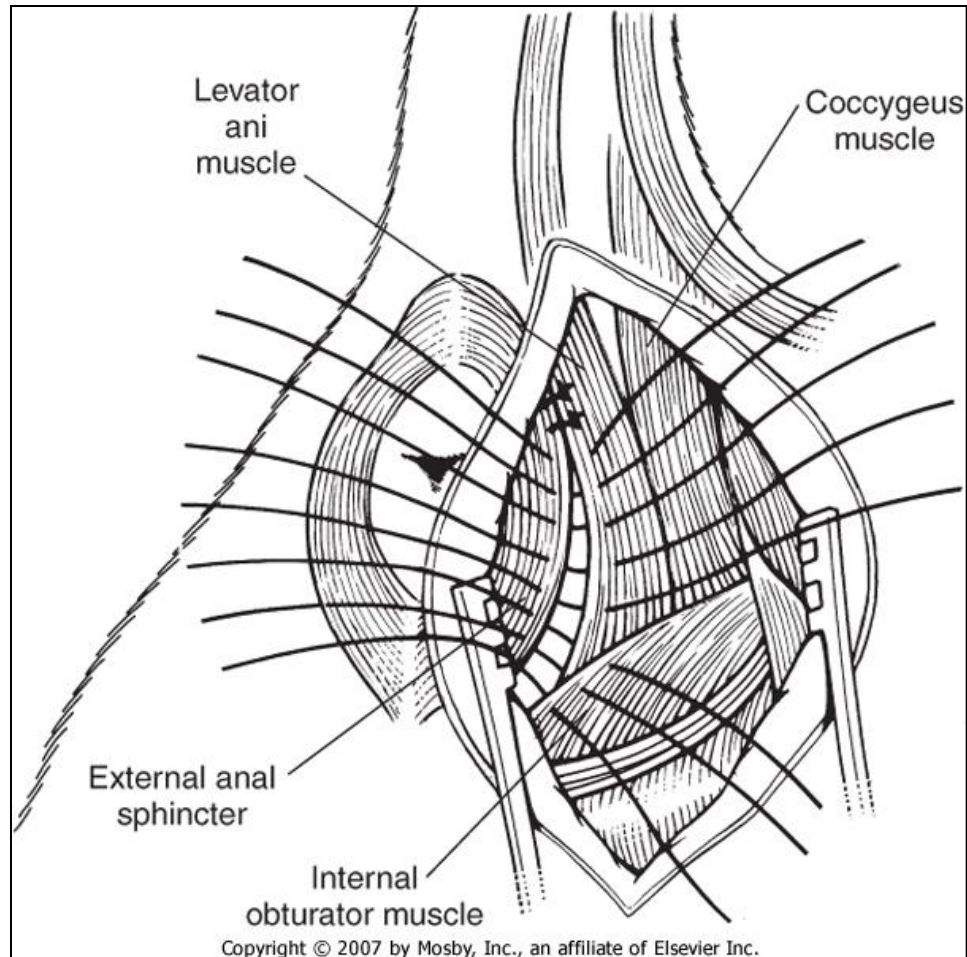


Treatment

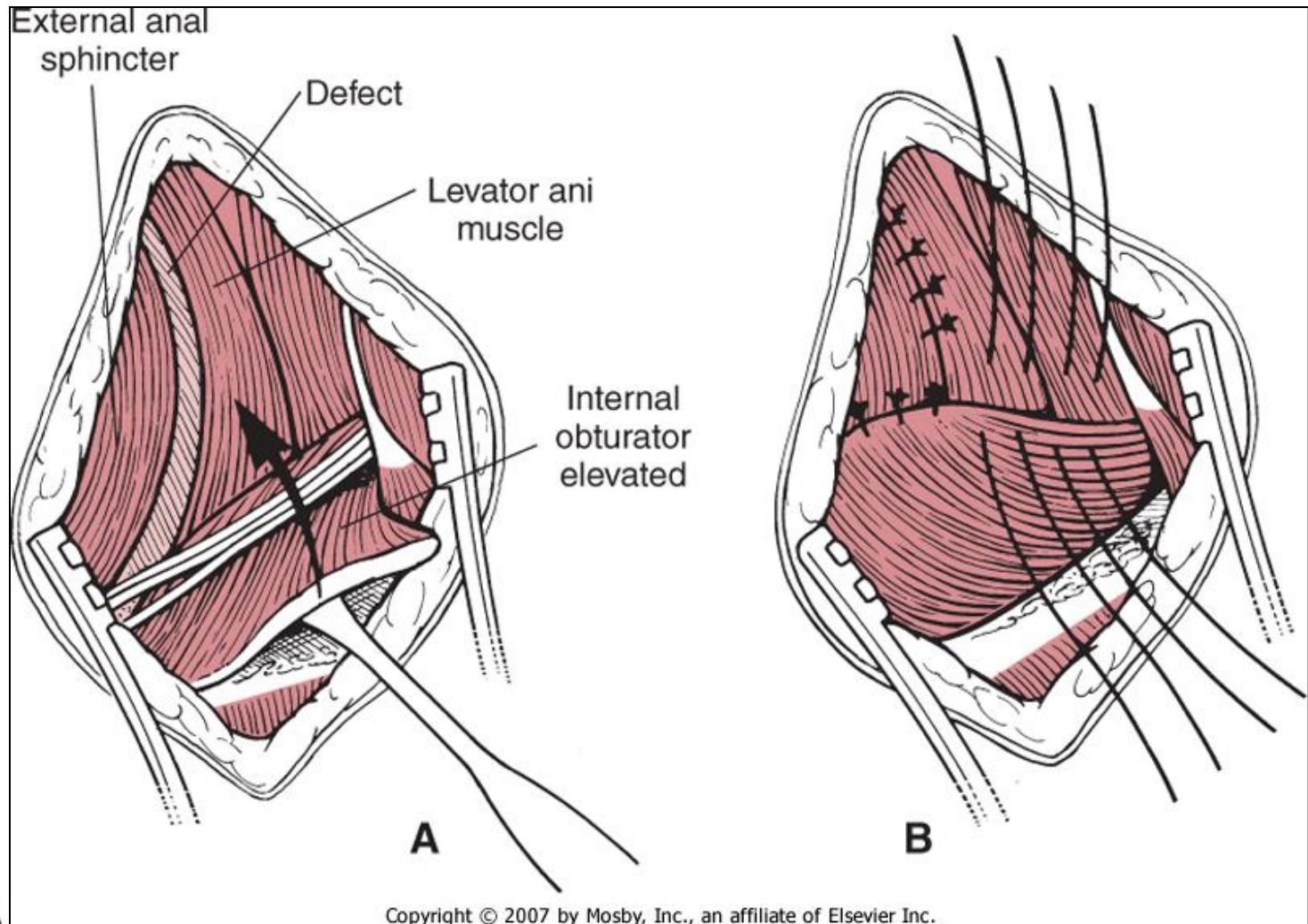
- Surgical repair
 - Identify nerves and vascular structures, if possible
 - Identify external anal sphincter, levator ani, coccygeal, internal obturator muscles



Traditional



Internal Obturator transposition



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Treatment

- Surgical repair in cats



Treatment

- Surgical repair in cats
 - No sacrotuberous ligament!



Treatment

- Additional procedures



Treatment

- Additional procedures
 - Colopexy
 - Cystopexy
 - Vasopexy

Not sufficient for control of clinical signs alone, must accompany herniorraphy



Treatment

- Augmenting weak muscles
 - Fascia Lata graft
 - Polypropylene Mesh
 - PSIS (Biosist)
 - Semitendinosus flaps
 - Especially if ventral component to hernia



Postop Care and Complications

- Postoperative Care
 - Implement (or continue) medical management
 - High fiber diet
 - Increased moisture in diet
 - Bulk-forming laxatives



Postop Care and Complications

- Complications
 - Early (first 24 hours postop)



Postop Care and Complications

- Complications
 - Early (first 24 hours postop)
 - Sciatic nerve entrapment
 - Rectal prolapse
 - Anal sac trauma
 - Urethral entrapment
 - Urinary incontinence (if bladder entrapped)
 - Incisional dehiscence



Postop Care and Complications

- Complications
 - Mid (3-5 days)



Postop Care and Complications

- Complications
 - Mid (3-5 days)
 - Incisional dehiscence
 - Fecal incontinence
 - Infection



Postop Care and Complications

- Complications
 - Late (>1 week postop)



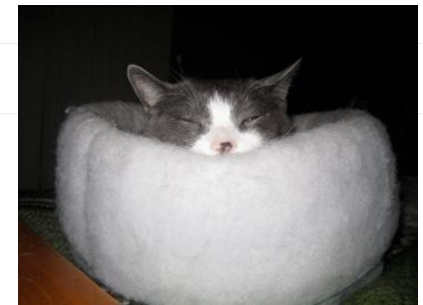
Postop Care and Complications

- Complications
 - Late (>1 week postop)
 - Recurrence
 - Contralateral herniation
 - Infection

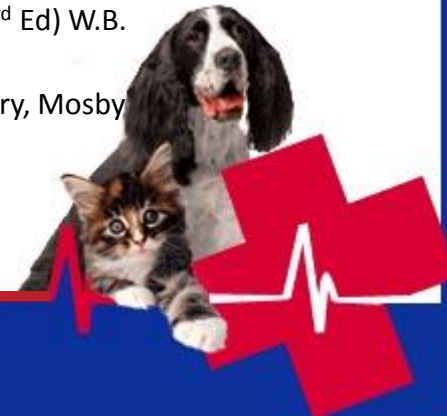




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Perineal Hernias

- Questions?



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