Obturator Hernia

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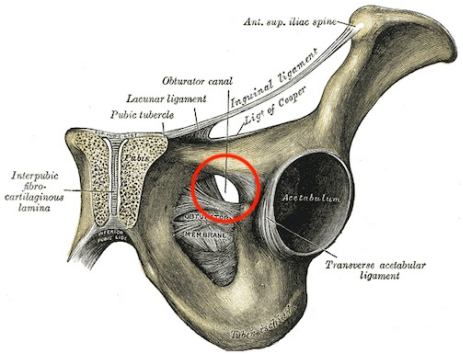
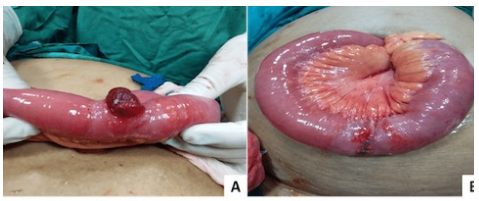
Pathophysiology and Presentation

Definition

- Hernia Through the Obturator Foramen
- Obturator Foramen Anatomy:
  - Located on the Anterolateral Aspect of the Pelvic Wall
  - Mostly Covered by a Fibro-Osseous Membrane
  - Open at the Anterosuperior Aspect – The Obturator Nerve, Artery, and Vein Enter the Obturator Canal
- Very Rare (< 1% of Abdominal Wall Hernias)
- High Morbidity and Mortality (15-25%) [1]
  - Due to Delayed Diagnosis and Bowel Infarction
- Most Often a Richter Hernia: Only the Antimesenteric Border of the Bowel Wall is Herniated [2]
  - May Not Cause Obstruction as Bowel Contents Can Pass Through the Intraperitoneal Portion of the Bowel
  - High Risk of Incarceration and Strangulation of the Herniated Portion



Obturator Foramen [10]



Richter Hernia [11]

Risk Factors [3-7]

- Loss of Preperitoneal Fat in the Obturator Canal Due to Cachexia or Profound Weight Loss
- 9x More Common in Women (Wider Pelvis with Larger Obturator Canal)
- Elderly (70-90 Years Old)
- Multiparous
- 2x More Common on the Right – Left Covered by the Sigmoid Colon
- *Nicknamed “Little Old Lady’s Hernia”

Other Groin Hernias

- *Inguinal Hernia*
  - *See Inguinal Hernia
- *Femoral Hernia*
  - *See Femoral Hernia
- *Athletic Pubalgia (Sports Hernia)*
  - *See Athletic Pubalgia (Sports Hernia)
  - Not a True Hernia
- *96% of Groin Hernias are Inguinal, 4% are Femoral [8,9]

Presentation

- Clinical Presentation is Generally Nonspecific and Preoperative Diagnosis Can Be Difficult
- Rarely See Proximal Thigh Mass Between the Pectineus and Adductor Longus Muscles – May Be Confused with a Femoral Hernia
- Obturator Neuralgia – Ipsilateral Groin Pain Radiating to the Medial Knee
  - Due to Compression of the Obturator Nerve
- Recurrent Episodes of Bowel Obstruction
  - Cramping Abdominal Pain
  - Nausea and Vomiting
  - Constipation
- Risk for Bowel Incarceration, Strangulation, and Necrosis

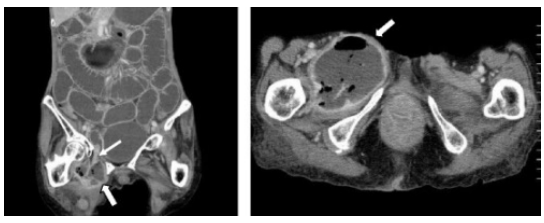
Diagnosis and Treatment

Signs of Obturator Neuralgia/Hernia

- *Howship-Romberg Sign* [12]
  - Ipsilateral **Medial Groin/Thigh Pain** Aggravated by Extension, Abduction, and Internal Rotation
- *Hannington-Kiff Sign* [13]
  - Absent Adductor Reflex with Positive Patellar Reflex
  - Adductor Reflex: Tapping of the Medial Epicondyle of the Femur Incites Hip Adduction
  - Patellar Reflex: Tapping of the Patellar Tendon Incites Knee Extension

Diagnosis

- Imaging (CT, US, or MRI) Generally Used to Confirm Preoperative Diagnosis
- May Be Diagnosed Intraoperatively During Exploration of a Bowel Obstruction [14]



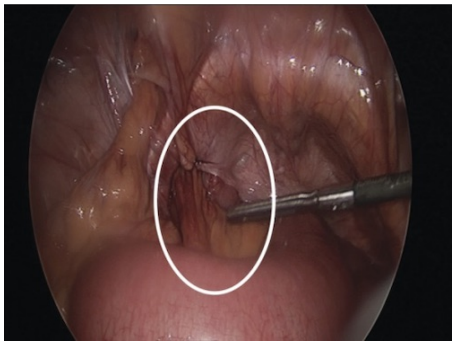
Right Obturator Hernia Seen on CT [16]

Treatment

- All Should Undergo Early Surgical Repair Regardless of Symptoms
- Higher Risk of Incarceration and Strangulation Preclude Watchful Waiting

Surgical Approach

- *Minimally Invasive (Laparoscopic/Robotic) Hernia Repair*
  - *See Minimally Invasive Inguinal Hernia Repair
  - Often Considered the Preferred Method of Repair in Elective Cases
- *Open Midline Laparotomy*
  - Generally Preferred in Cases of Bowel Ischemia/Necrosis
- Other Options:
  - *Open Inguinal Approach*
  - *Open Obturator Approach*
- Bowel Reduction May Require **Incision of the Obturator Membrane** – Done at the Inferior Margin and Extended Inferomedial to Avoid Injury of the Nerve/Vessels [15]



Left Obturator Hernia (Circle) with Incidental Femoral Hernia at 11 O'clock Position [17]

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