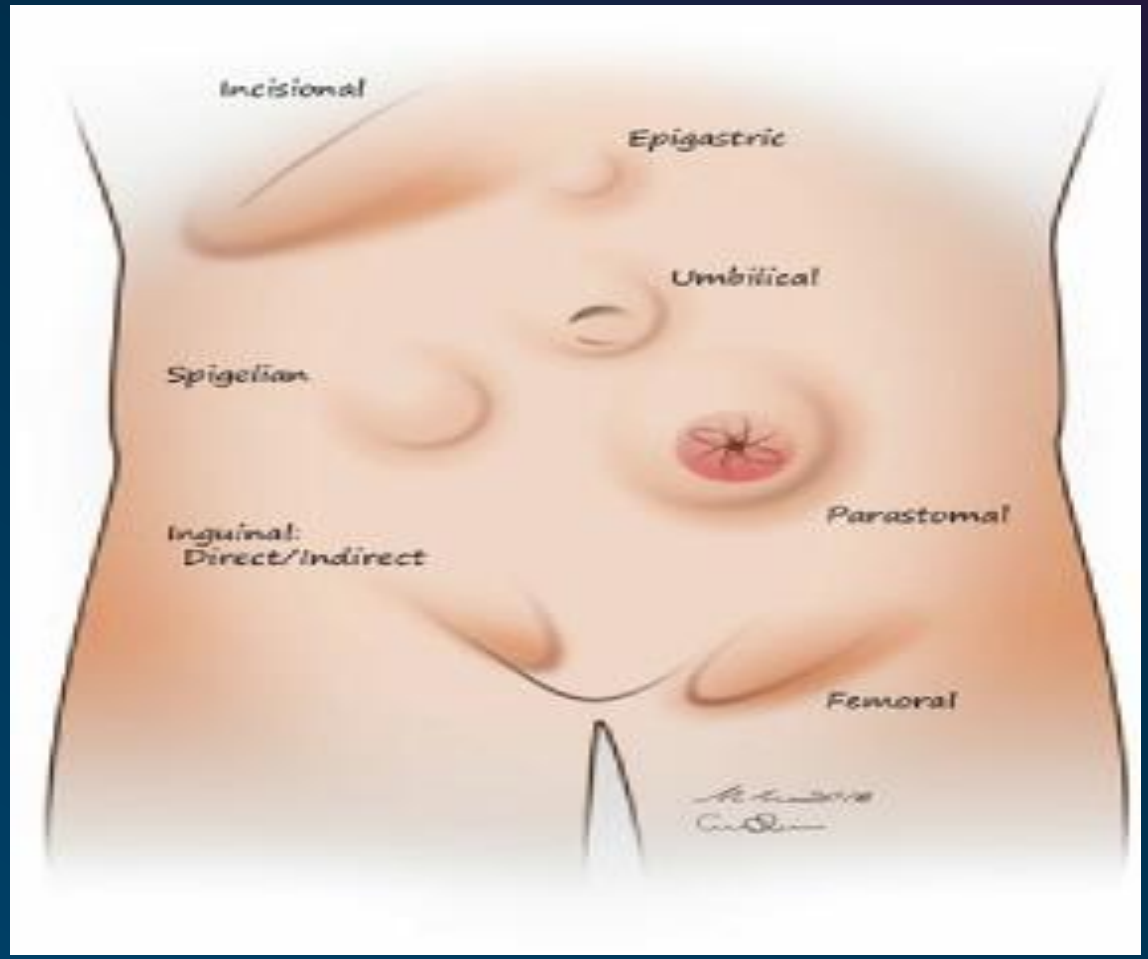
IN THE NAME OF GOD

Hernia

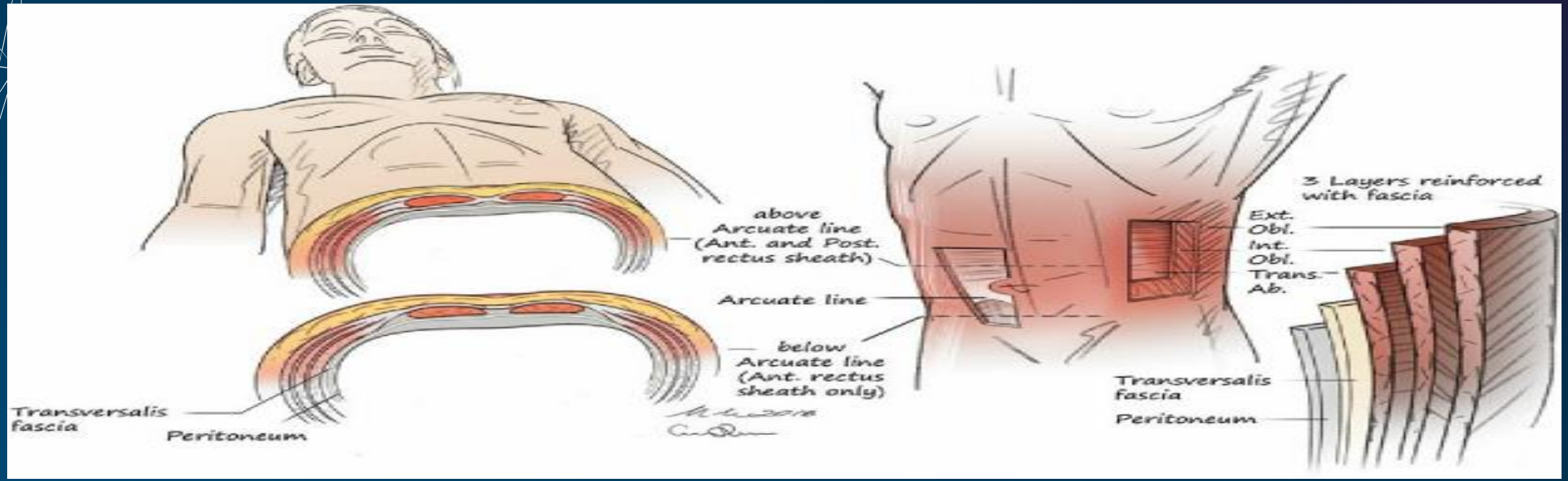
Forough deldadeh

- Possible sites of abdominal wall and groin hernias.



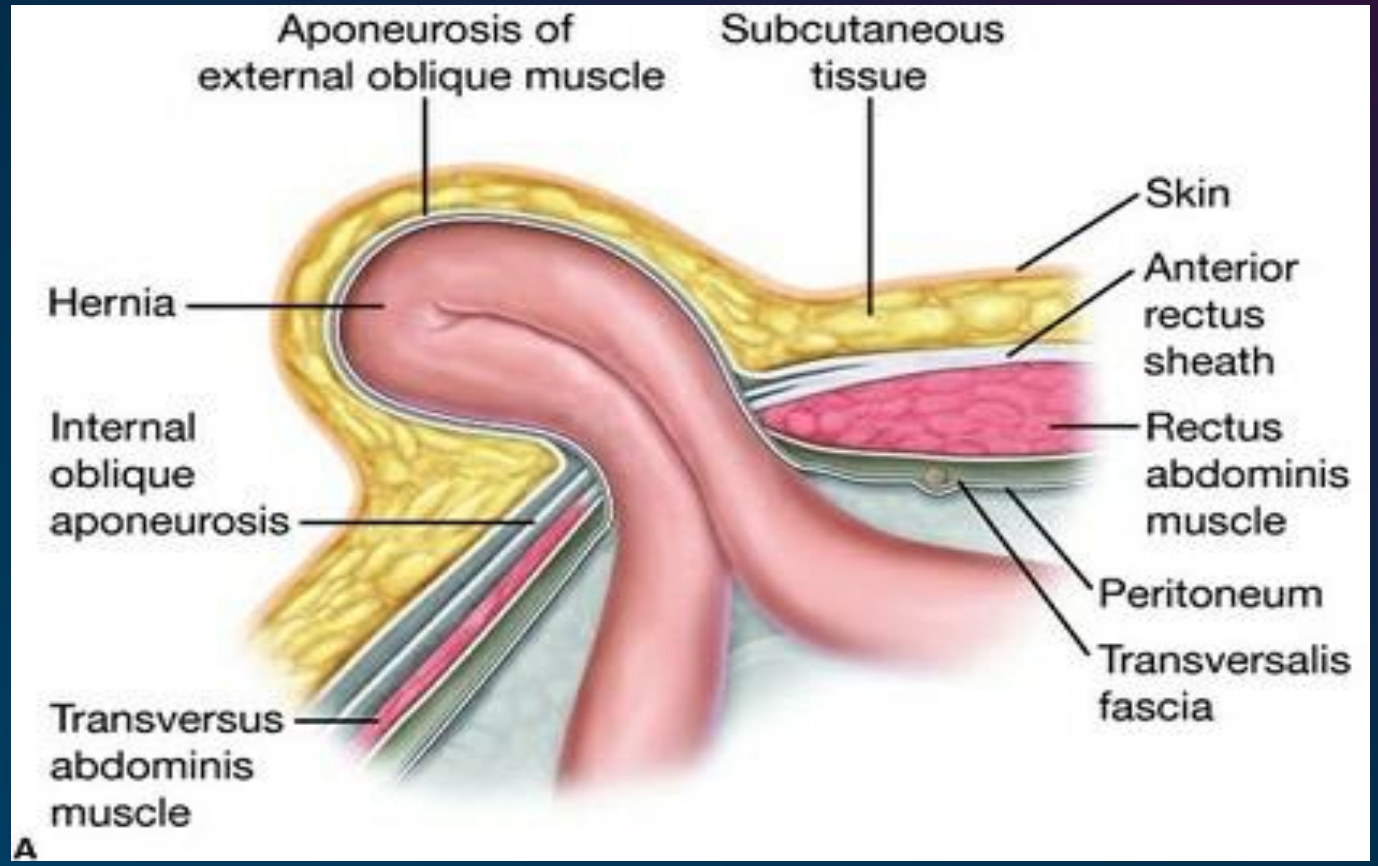
•ABDOMINAL WALL HERNIAS

- Anatomy
- Abdominal Wall Layers
- Blood Supply and Innervation



Main Hernia Types

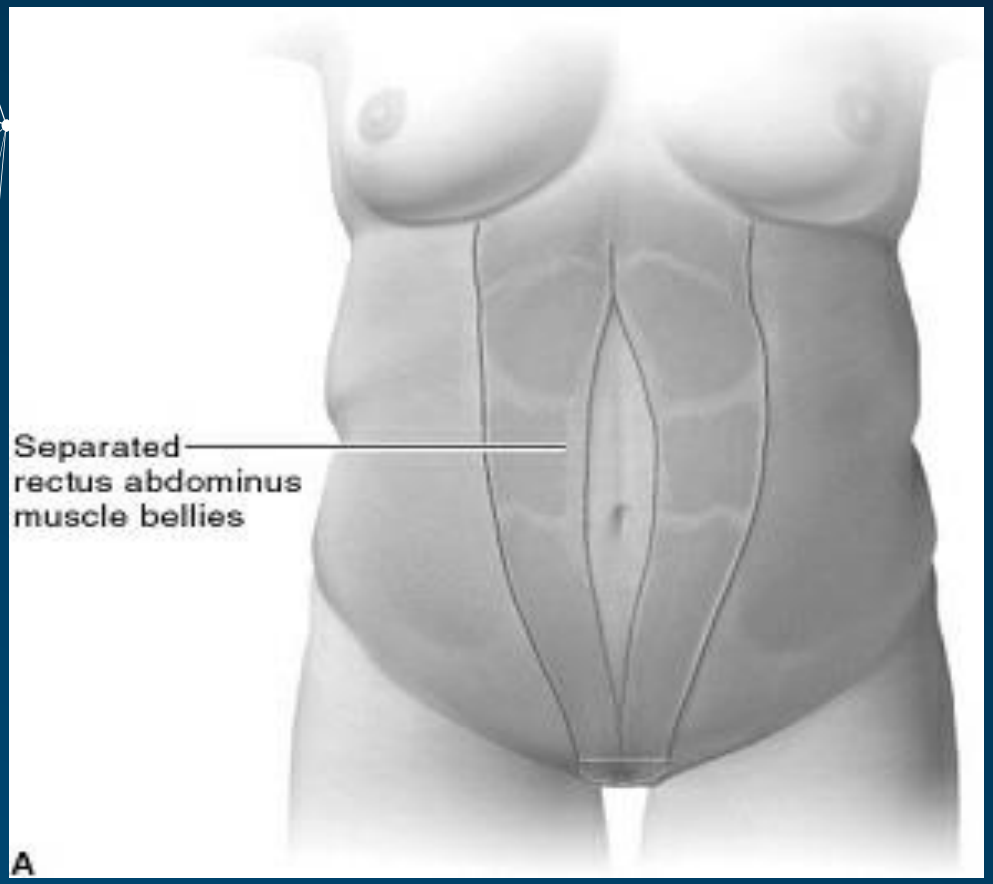
- Ventral
- Umbilical
- Incisional



Special Situations

- Spigelian hernia
- parastomal hernia

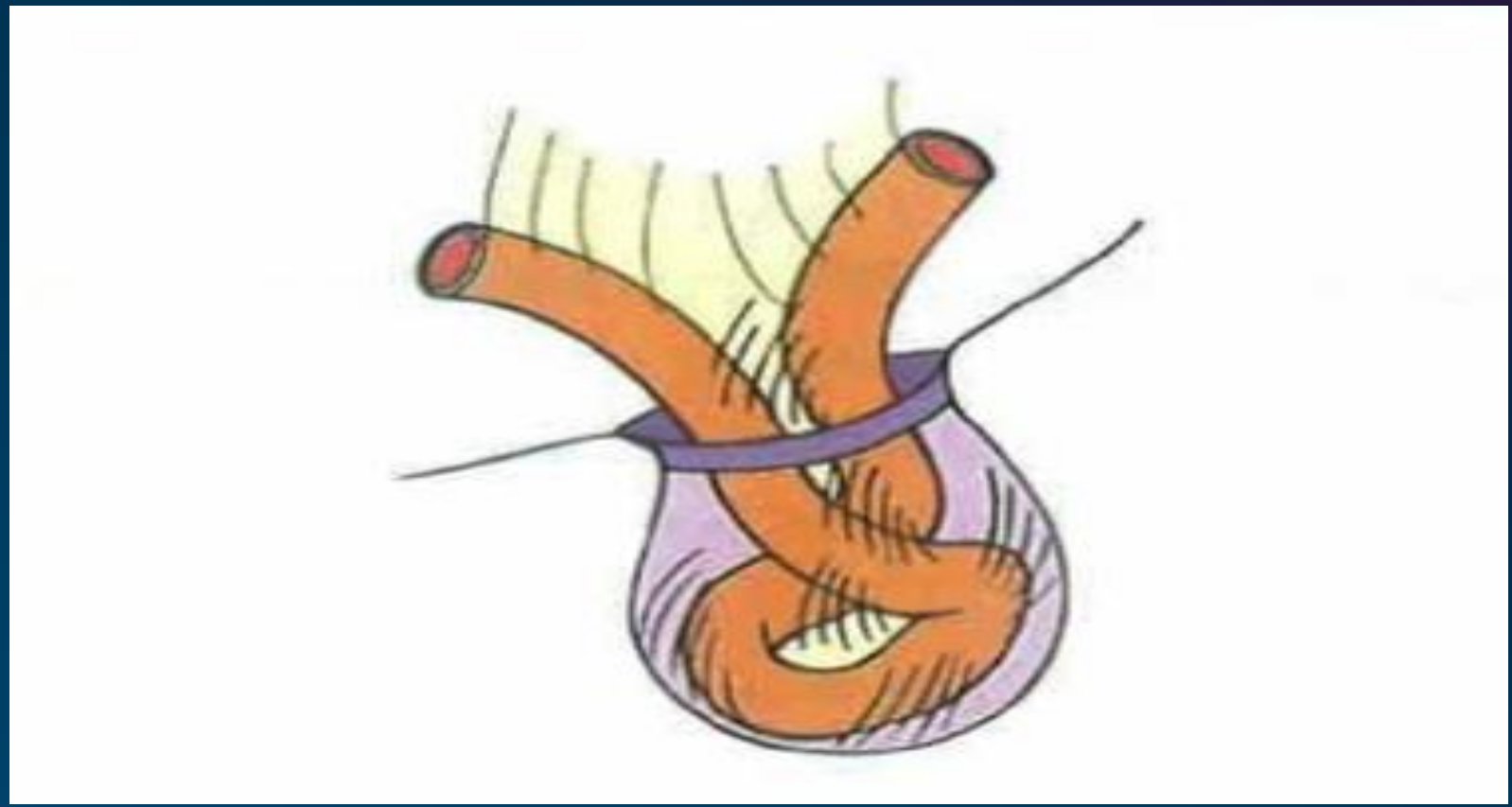
rectus diastasis



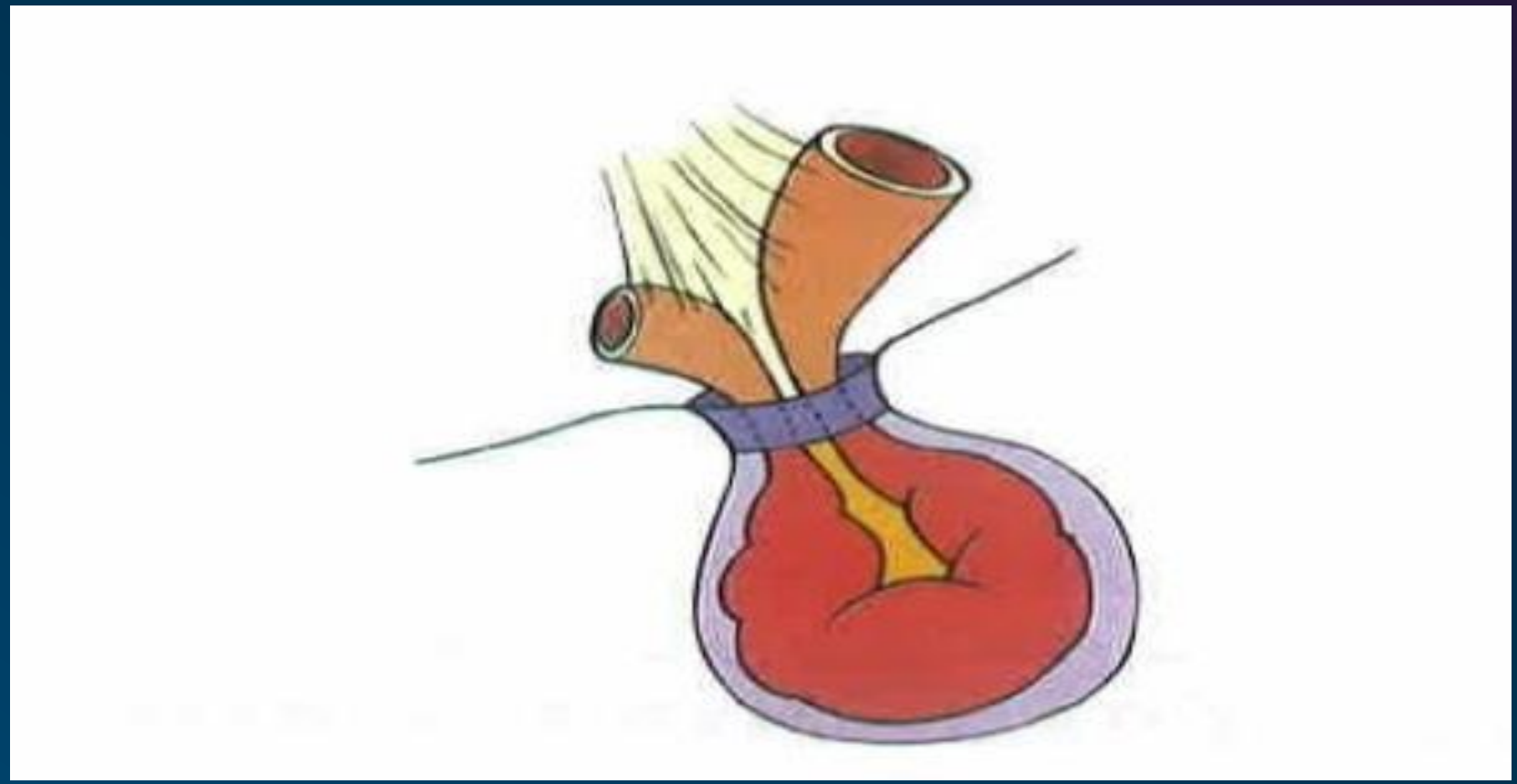
Clinical Presentation

- asymptomatic
- symptomatic
- sub acute
- acute

Incarceration



strangulation



Surgical History

Patient history can provide useful information regarding the nature of prior abdominal pathology and the likelihood of intra-abdominal adhesions. Both of these are factors that may affect the hernia repair. Prior abdominal incisions, prior fascial dehiscence, or postoperative abdominal wound infection all increase the risk for incisional hernia. A history of prior abdominal tubes or ostomies may create disruptions in the abdominal wall that will affect how hernia repair should be conducted. Old operative notes and discharge summaries can be very helpful in this regard.

Hernia-Specific Factors

- Adequate characterization of the hernia defect and determination of the exact location are useful in operative planning. If hernia size and location cannot be established by physical exam alone, computed tomography (CT) is useful to confirm the defect location and size, in addition to providing information about visceral involvement, the surrounding abdominal wall, and the position of a stoma, previously placed mesh, or other implantable devices.

Patient Factors

- **Modifiable Risk Factors**
- The decision for hernia repair should focus on modifiable risk factors, such as functional status, smoking, obesity, and medical comorbidities. Several of these risk factors may be modifiable to reduce perioperative morbidity. Nutritional optimization for the undernourished patient is critical to ensure adequate wound healing, especially with the large incisions used for repair of hernias of the main abdominal wall. Weight management for the obesity reduces overall perioperative morbidity, wound issues, and the risk of hernia

- recurrence after repair. Smoking cessation is helpful from both a pulmonary complication and wound healing standpoint, and diabetes is associated with perioperative morbidity and mortality, limits wound healing, and increases the risk of infection. Hemoglobin A1C should be normalized if possible to <7 prior to elective surgery. Perioperative venous thromboembolism prophylaxis may also need to be considered. Routine mechanical prophylaxis with compression devices is appropriate for most patients, but high-risk patients may benefit from chemoprophylaxis (anticoagulation) as well. Patients already on anticoagulation will require a plan to bridge anticoagulation.

•Perioperative Planning

•In addition to the reduction of modifiable risk factors, prehabilitation improves preoperative strength, mobility, and overall recovery for patients with poor functional status. Plans may need to be in place for alternative, nonnarcotic pain control options—lidocaine drip, regional blocks of the transversus abdominis plane (TAP), and spinal or epidural blocks—which may reduce respiratory depression and aid in improving postoperative pain control, ambulation, and early return of bowel function. Often, such interventions are incorporated into perioperative prehabilitation and enhanced recovery protocols.

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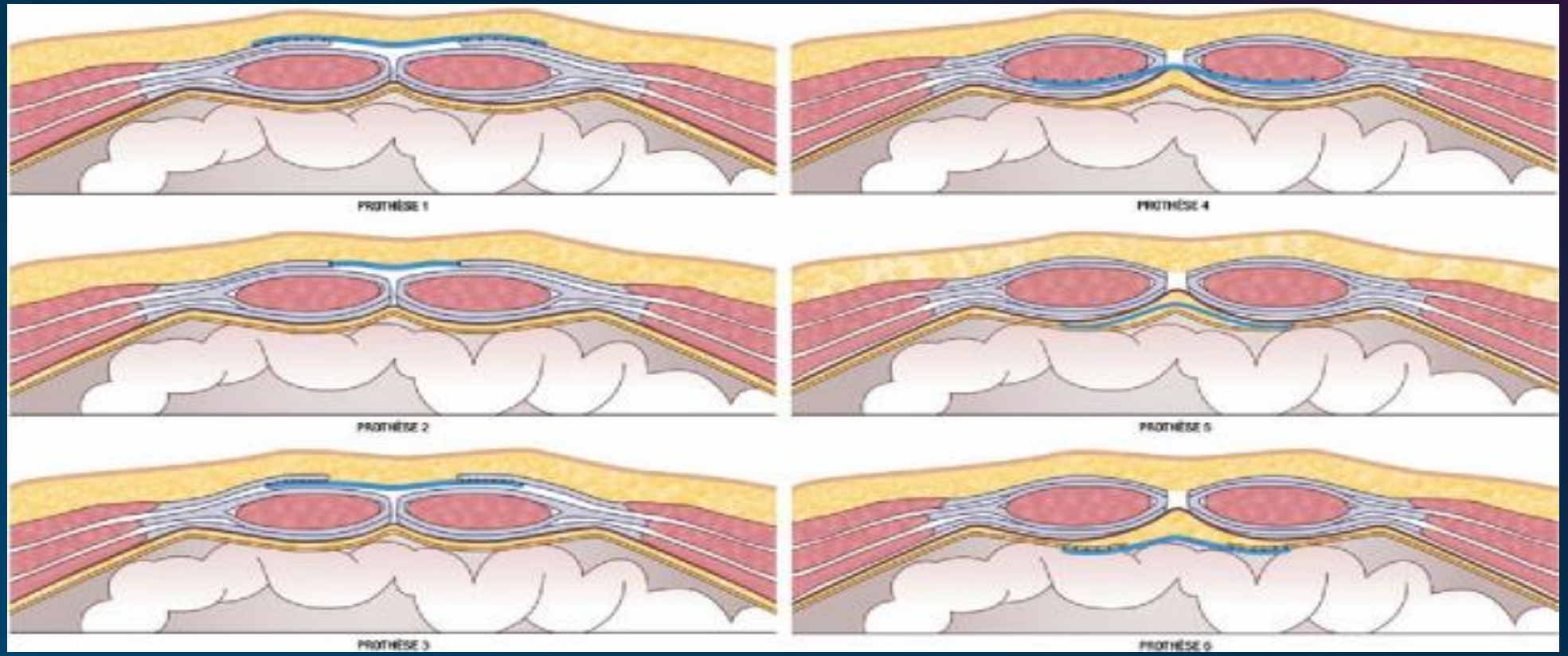
•Patient Counseling

•Preoperative patient counseling typically includes information regarding potential for bowel obstruction or strangulation prior to repair. This is critical in understanding the risk of repair versus nonoperative management, especially in those at the higher risk for perioperative morbidity and mortality. Recurrence risk after repair should focus on individual patient factors such as prior abdominal surgery, obesity, age, smoking status, overall activity level, and hernia size. Specific risks of hernia repair should be reviewed, including the risks of seroma, mesh infection, nerve impingement, and bowel injury, all discussed in the following paragraphs. Available online risk assessment tools can be very useful for patient education, including the American College of Surgeons risk calculator.

Surgical Approaches

- **Primary Repair**

- **Mesh Repair**


PROTHÈSE 1
PROTHÈSE 4
PROTHÈSE 2
PROTHÈSE 5
PROTHÈSE 3
PROTHÈSE 6

- **Components Separation Repair**

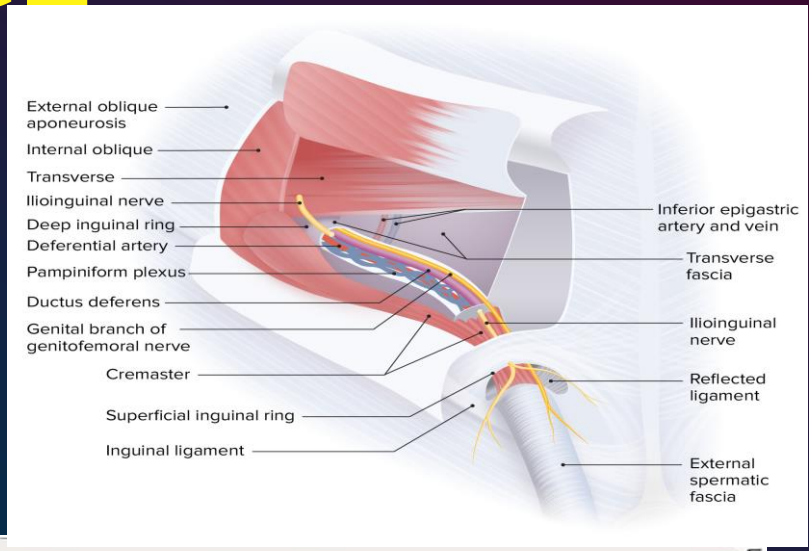
- **Minimally Invasive versus Open Approach**

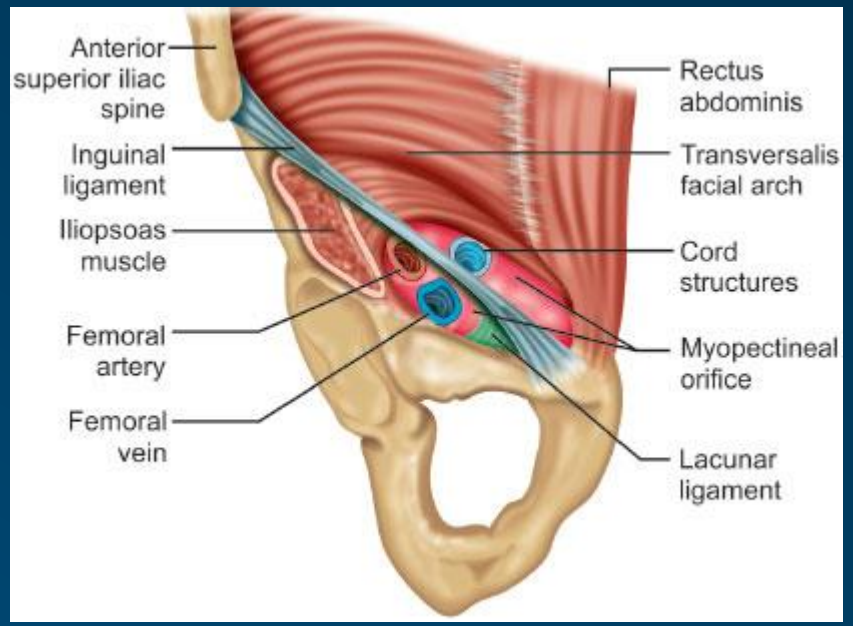
Common Postoperative Issues

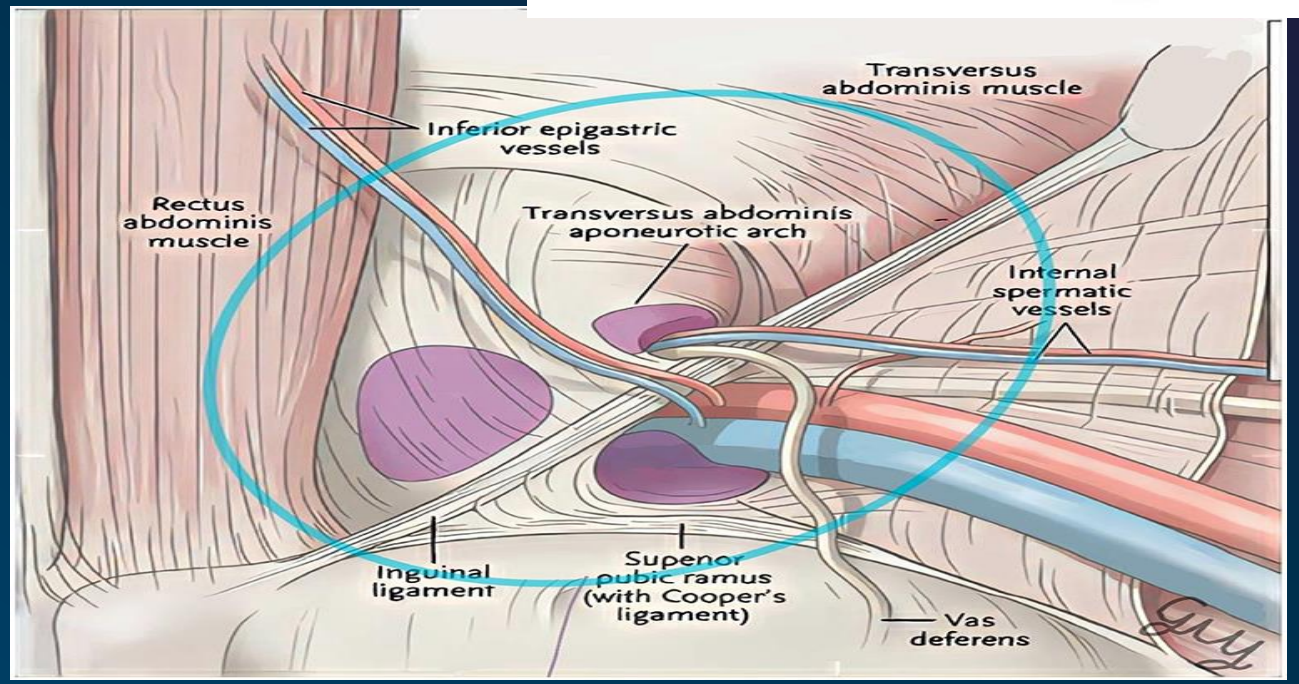
- Seroma
- Infection
- Neuropathic Symptoms
- Recurrence

MYOPECTINEAL ORIFICE (GROIN) HERNIAS

- Anatomy
- Myopectineal Orifice Boundaries







Myopectineal Orifice Spaces

- Femoral Canal
- Inguinal Canal

Myopectineal Orifice Hernia Types

- Indirect
- Direct
- Femoral
- Pantaloon
- in women

Special Situations

- Richter
- Sliding
- Littre
- Amyand

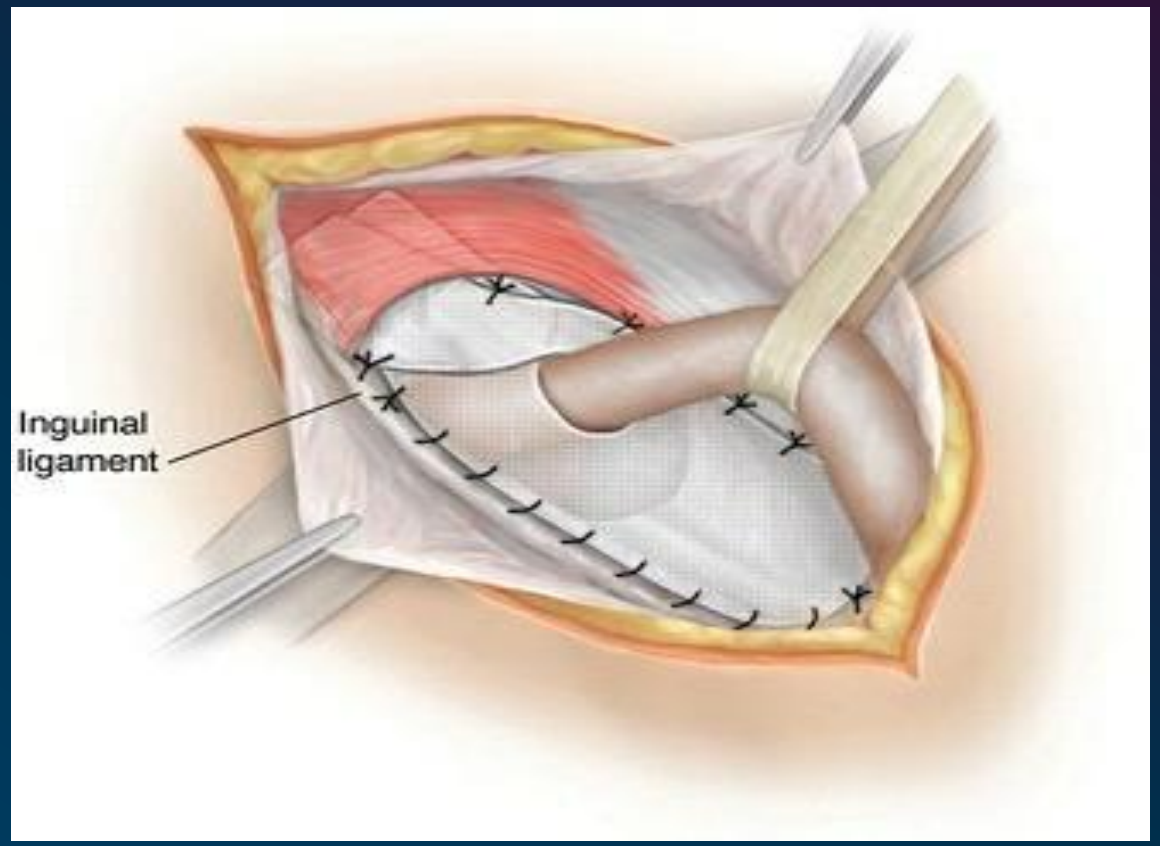
Clinical Considerations

- Patient Presentation

Surgical Approaches

- Anterior Approach

Lichtenstein Mesh Repair



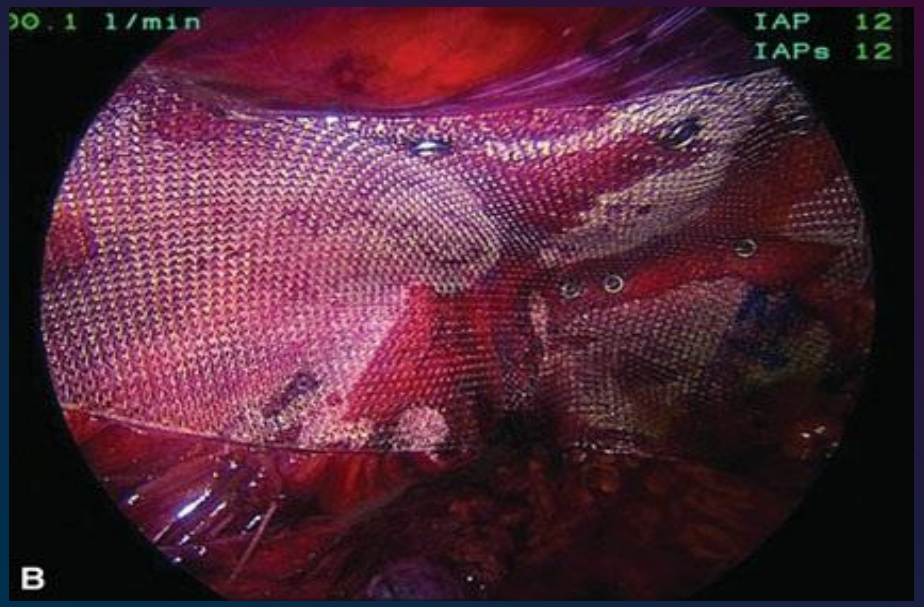
- **Tissue Repairs**

TABLE 11-1 Myopectineal Hernia Tissue Repairs

	Tissue Closed	Myopectineal Orifice Hernia Types	Notes
McVay	Conjoint tendon to Cooper's ligament medially; conjoint tendon to ilioinguinal ligament laterally	Femoral Direct Indirect	• Relaxing incision is needed to reduce tension[a]
Bassini	Conjoint tendon to ilioinguinal ligament	Direct Indirect	• Relaxing incision is needed to reduce tension[a] • Will NOT repair femoral hernia
Shouldice	Complex, multilayered repair	Direct Indirect	• Reportedly tension free • Will NOT repair femoral hernia • May have lowest recurrence rate of tissue repairs

[a]*Similar to the process described for hernias of the main abdominal wall, under the section Components Separation Repair.*

- **Posterior Approach**
- **total extraperitoneal (TEP)**



- **transabdominal preperitoneal (TAPP)**

Choosing a Technique

Common Postoperative Issues

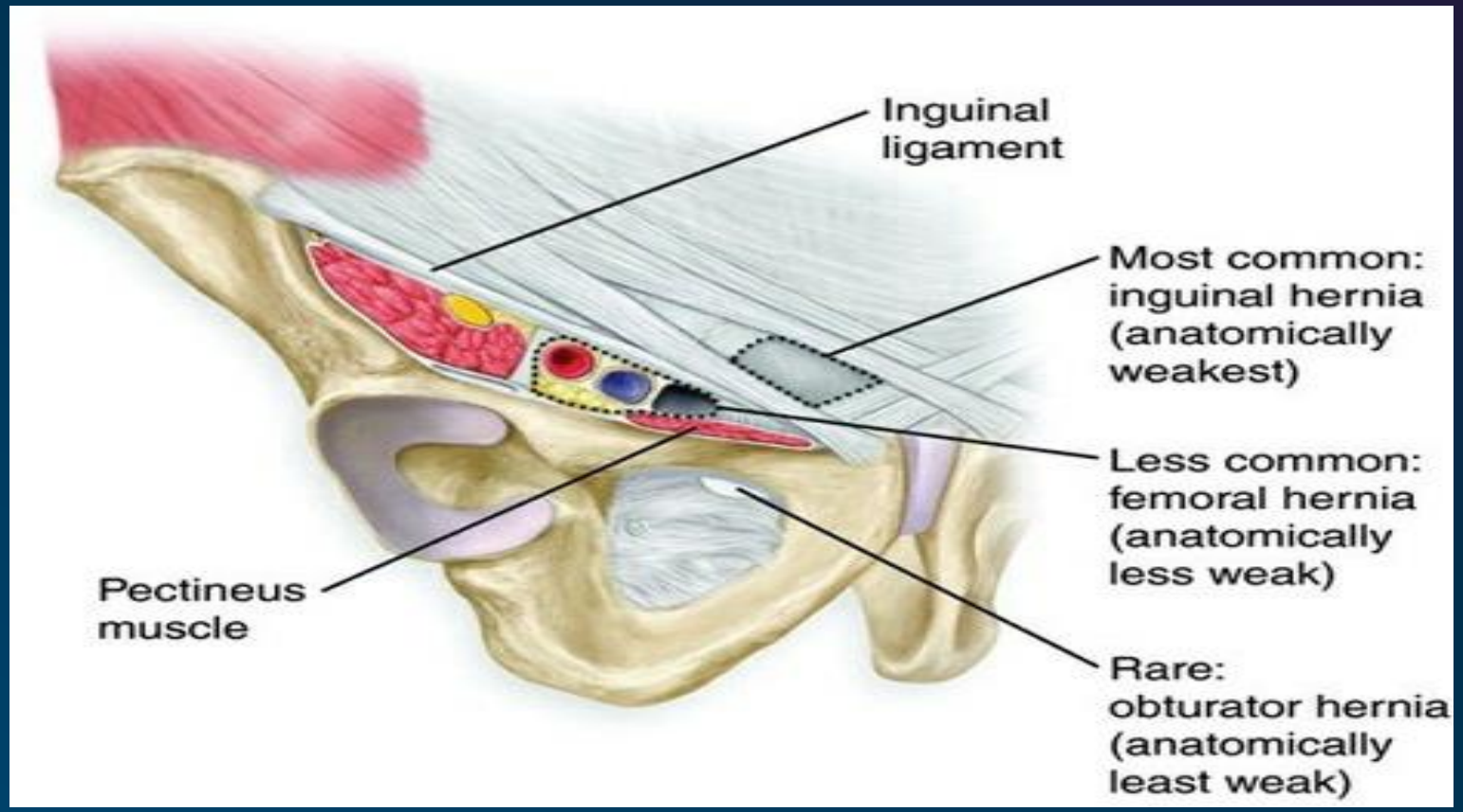
- swelling or ecchymoses
- Neuropathic Symptoms
- Orchitis

Pubic Inguinal Pain Syndrome

TABLE 11-2 Differential Diagnosis of Inguinodynia

Type	Examples
Sports/work injuries	Adductor muscle strain Inguinal canal disruption Osteitis pubis
Hip joint injuries	Stress fracture Avulsion fracture Degenerative joint disease Labral tear Femoroacetabular impingement Osteonecrosis
Genitourinary	Round ligament pain Varicocele Prostatitis Orchialgia Urinary tract infection Endometriosis
Gastrointestinal	Intra-abdominal adhesions Inflammatory bowel disease Diverticulitis Irritable bowel syndrome

OBTURATOR HERNIA



Thanks

for your attention