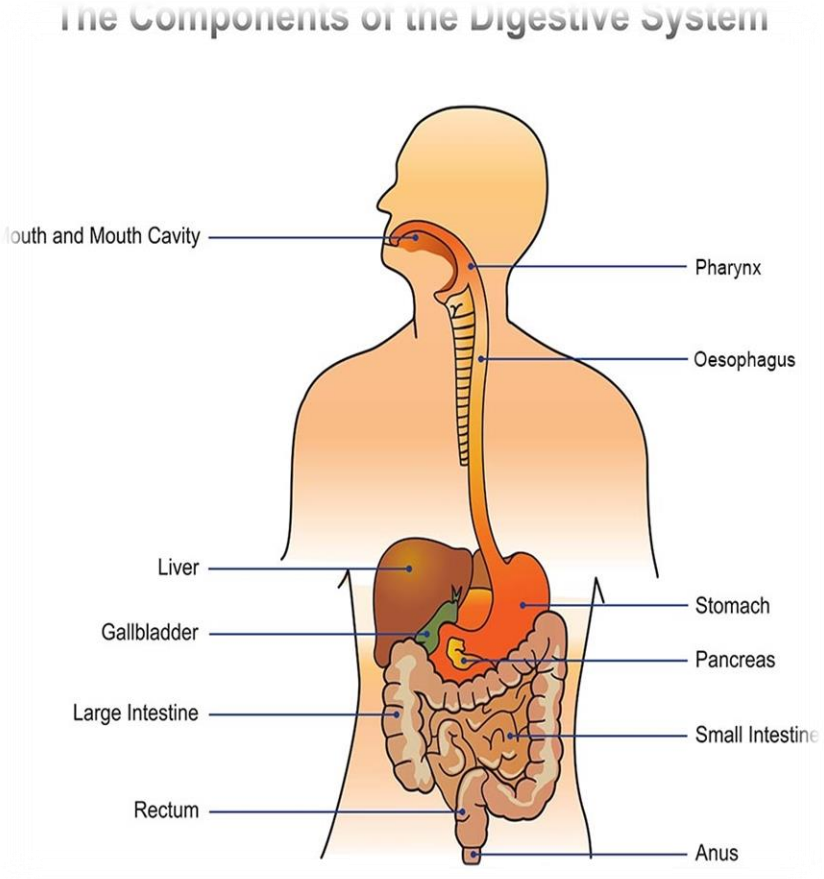
Adult Nursing –Second Stage

Appendicitis and Hiatal Hernia



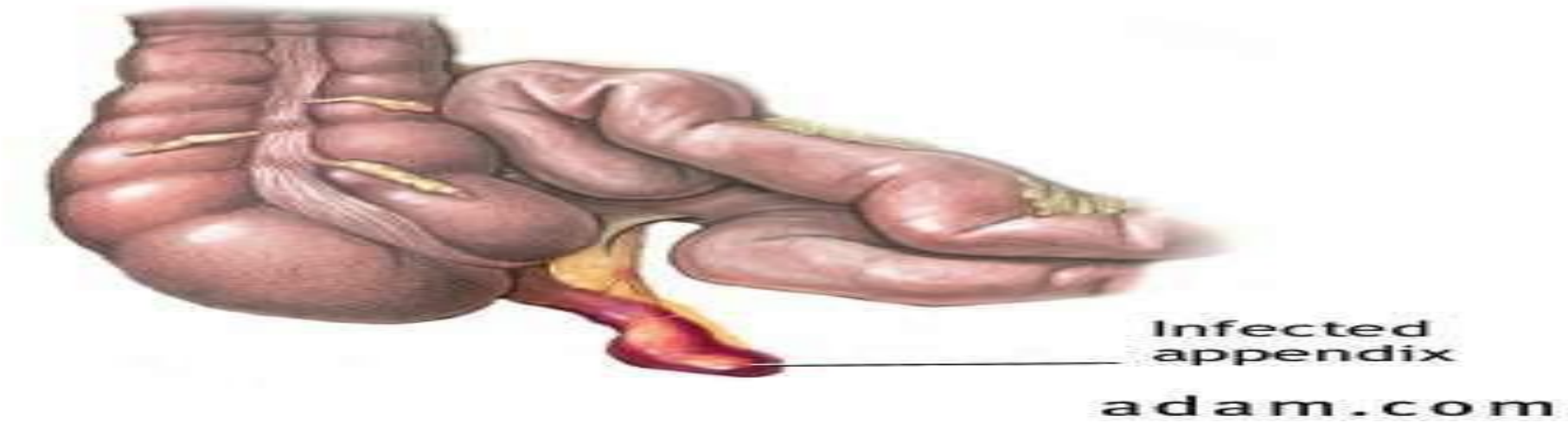
Dr.

Wissam Mohammed

Lecture 6

Definition

Appendicitis is inflammation of the vermiform appendix **caused by** an obstruction of the intestinal lumen from infection, stricture, fecal mass, foreign body, or tumor.



Pathophysiology/Etiology

1)Obstruction is **followed by** inflammation of the appendix, edema, infection, and mucous ulceration, ischemia and the lumen filled with pus.

2)As **intraluminal tension** develops, necrosis and perforation usually occur.

3)Appendicitis can affect any age group, but is most common in males 10 to 30 years old.

Clinical Manifestations

1)Generalized or localized abdominal pain in the **epigastric** or **periumbilical** areas and the right upper abdomen. Within 2 to 12 hours, the pain localizes in the right lower quadrant and intensity increases.

2)Local tenderness at the **mcBurny's point** (point just below midpoint of line between umbilicus and iliac crest on the right side)

3)Rebound tenderness, involuntary guarding.

Cont.

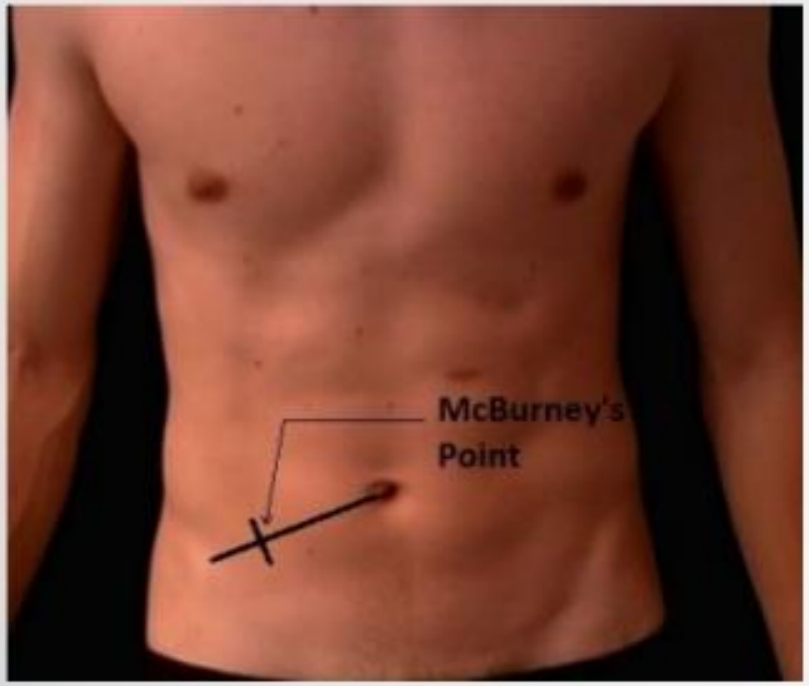
4). **Rovsing's sign** by palpating left lower quadrant cause pain in the right lower quadrant.

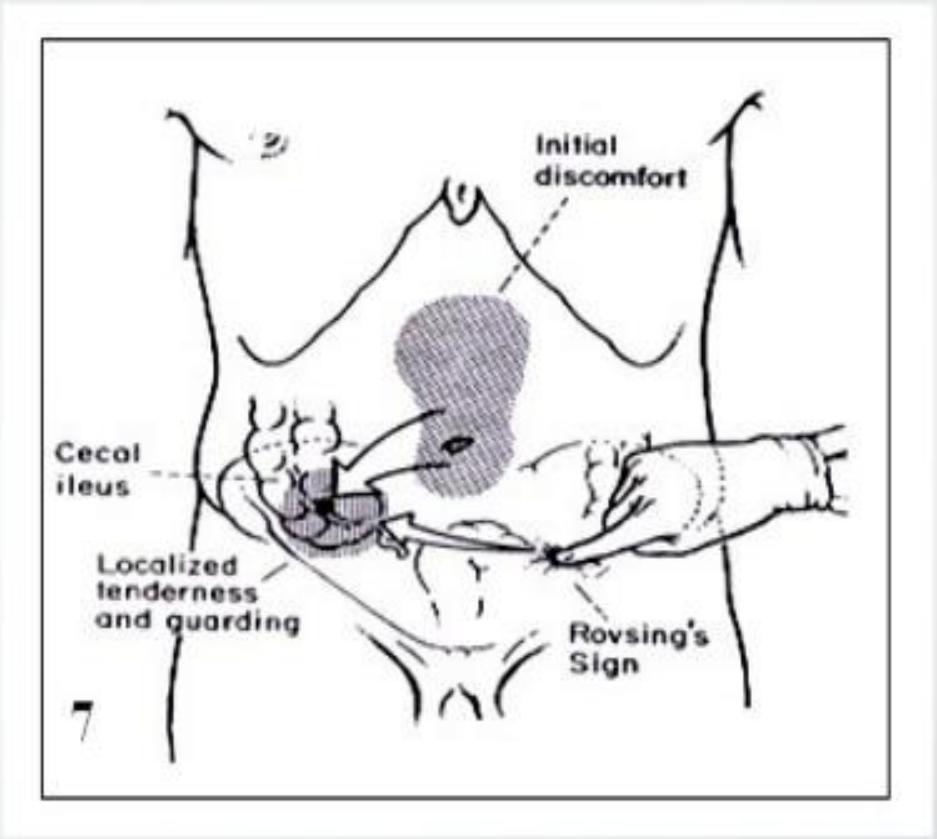
5). Anorexia, moderate malaise, mild fever, nausea and vomiting.

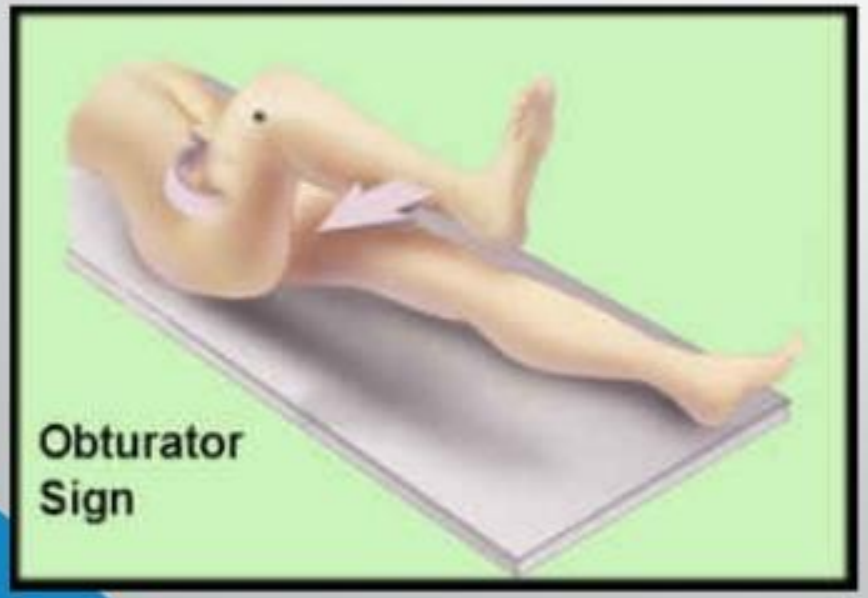
6). Usually constipation occurs; occasionally diarrhea.

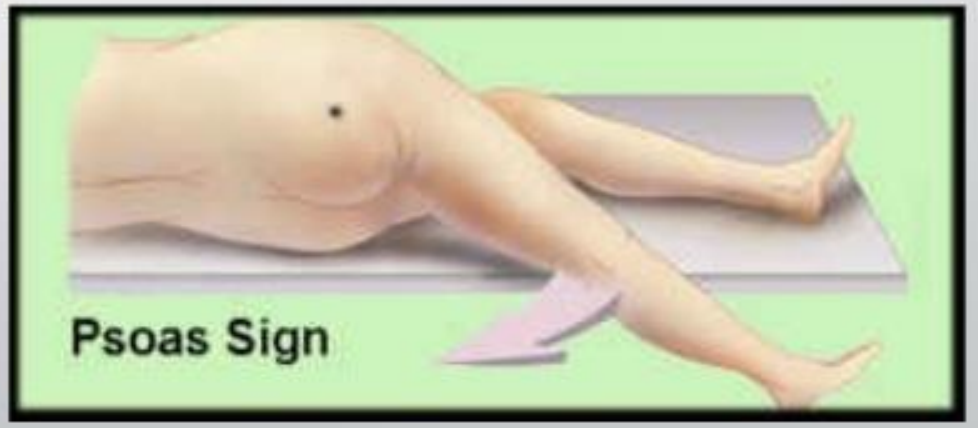
7). Late, tachycardia and fever.

8). If appendix ruptures, pain becomes more diffuse, abdominal distension from paralytic ileus and the condition worsen.


McBurney's
Point


Initial
discomfort
Cecal
ileus
Localized
tenderness
and guarding
Rovsing's
Sign
7


Obturator
Sign


Psoas Sign

Diagnostic Evaluation

1)Physical examination consistent with clinical manifestations.

2)White blood cell (WBC) count reveals moderate leukocytosis (10,000 to 16,000/mm).

3)Abdominal x-ray may visualize shadow consistent with fecalith in appendix.

4)Pelvic sonogram can visualize appendix.

Management

- **Surgery**

a) Simple appendectomy or laparoscopic appendectomy.

b) Preoperatively maintain bed rest, NPO status, IV hydration, possible antibiotic prophylaxis, and analgesia.

- **Complications**

1) Perforation (in 95% of cases)

2) Abscess

3) Peritonitis

Nursing Diagnoses

1)Pain related to inflamed appendix

2)Risk for Infection related to perforation

Nursing Interventions

A. Relieving Pain

1) Monitor pain level, including location, intensity, pattern.
2) Assist patient to more comfortable positions, such as semi-Fowler's and knees up.
3) Restrict activity that may aggravate pain, such as coughing and ambulation.
4) Apply ice bag to abdomen for comfort.
5) Give analgesics only as ordered after diagnosis is determined.
6) Avoid indiscriminat palpation of the abdomen to avoid increasing the patient's discomfort.
7) Do not give antipyretics to mask fever and do not administer cathartics, because they may cause rupture.

Nursing Interventions

- B. Preventing Infection

1)Monitor frequently for signs and symptoms of worsening condition indicating perforation, abscess, or peritonitis: increasing severity of pain, tenderness, rigidity, distention, ileus, fever, malaise, tachycardia.

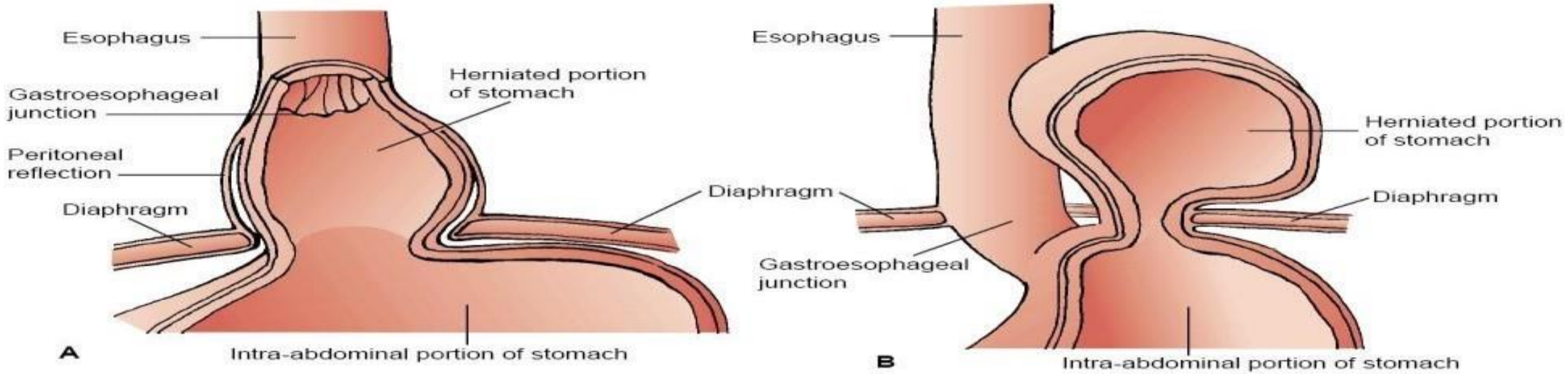
2)Administer antibiotics as ordered.

3)Promptly prepare patient for surgery.

Definition

- A hiatal hernia is a protrusion of a portion of the stomach through the hiatus of the diaphragm and into the thoracic cavity.
- **Types of hiatal hernias** :There are two

1. Sliding hernia—the stomach and gastro-esophageal junction slip up into the chest most common.
2. Paraesophageal hernia (rolling hernia)—part of the greater curvature of the stomach rolls through the diaphragmatic defect.



Pathophysiology/Etiology

- Muscle weakening due to aging or other conditions, such as esophageal carcinoma.
- Trauma or following certain surgical procedures.
- Excessive intra-abdominal by; obesity, pregnancy, abdominal tumors, ascites, and repeated heavy lifting or strain
- Long term bed rest in a reclining position

Complications:

1. Incarceration of the portion of the stomach in the chest—constricts the blood supply
2. Esophagitis.
3. Barretts esophagus: is a pre-malignant condition in which the normal squamous lining of the lower esophagus is replaced by columnar mucosa (columnar lined esophagus) containing areas of intestinal metaplasia. It occurs as adaptive.

Clinical Manifestations

1. May be asymptomatic
2. Heartburn (with or without regurgitation of gastric contents into the mouth).
3. Dysphagia; chest pain

- **Diagnostic Evaluation**

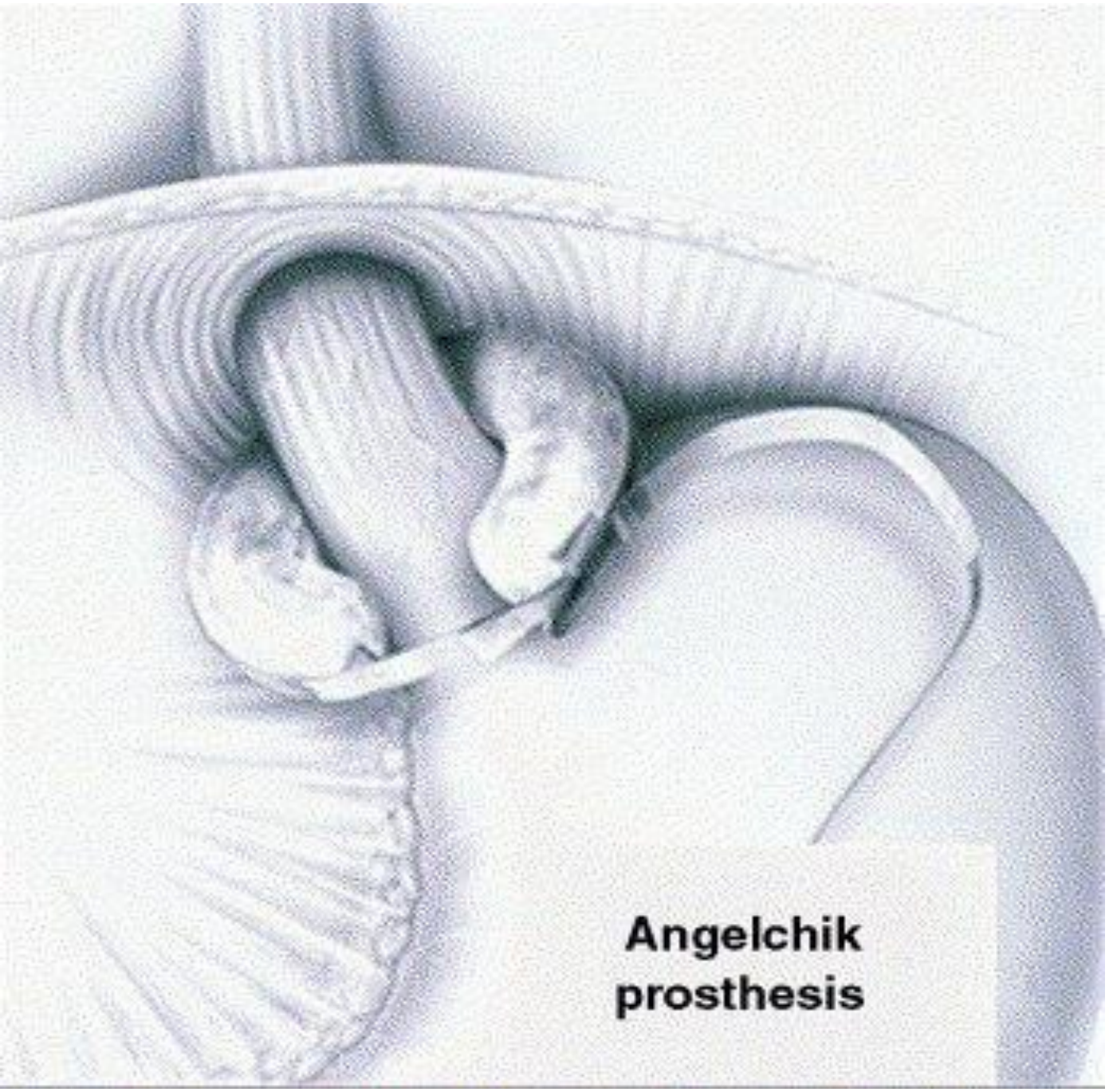
4. Barium study of the esophagus outlines hernia .
5. Endoscopic examination visualizes defect .

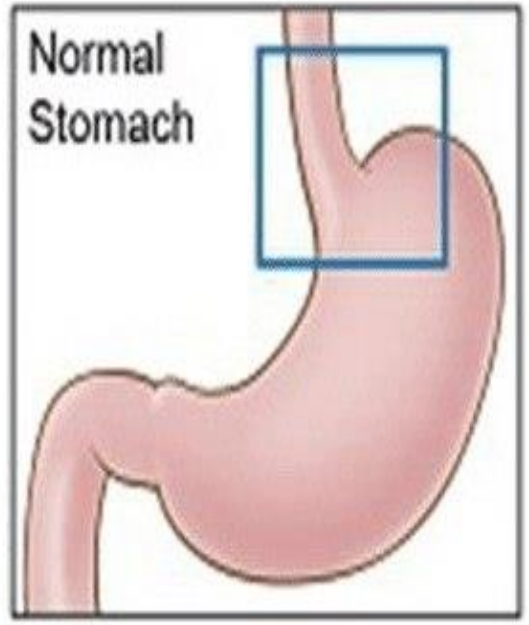
Management

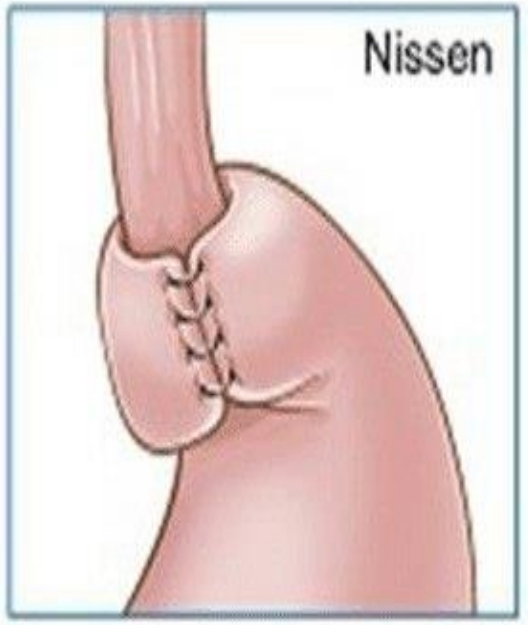
1. Elevation of head of bed (15–20 cm [6–8 in]) to reduce nighttime reflux .
2. Antacid therapy—to neutralize gastric acid .
3. Histamine-2 receptor antagonist (cimetidine, ranitidine)—if patient has esophagitis .
4. Surgical repair of hernia if symptoms are severe.

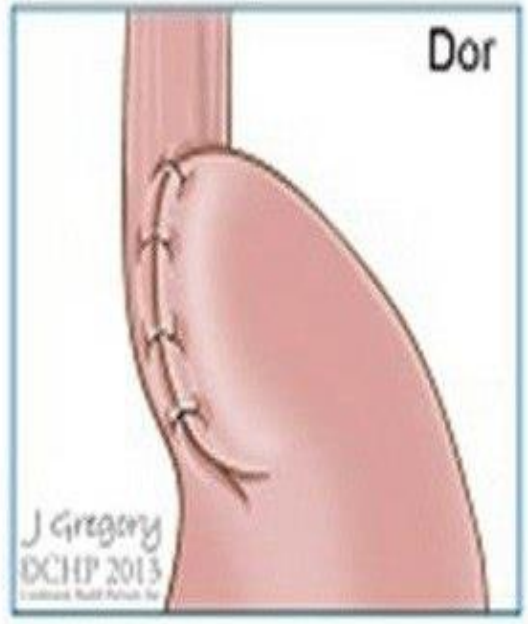
A. Fundoplication: Strengthens the lower esophageal sphincter by suturing the funds of the stomach around the esophagus and anchoring it below the diaphragm.

B. Angelchik Prosthesis: Is placement of a C shaped silicon device which is tied around the distal esophagus , anchoring it below the diaphragm .


Angelchik
prosthesis


Normal
Stomach


Nissen


Dor
J Gregory
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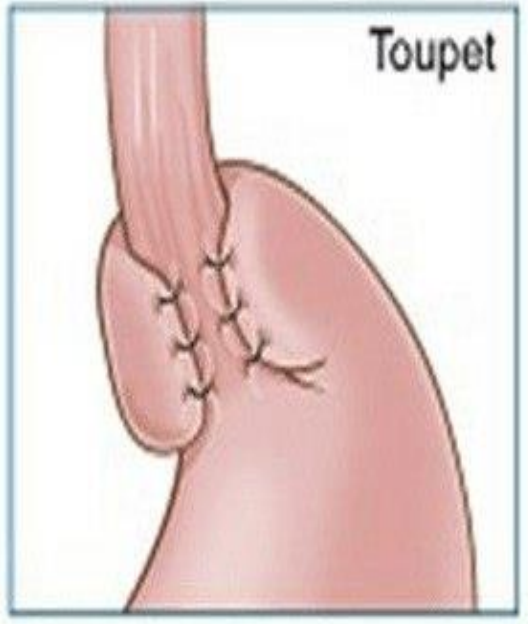
Toupet

Nursing Interventions/ Patient Education

Instruct patient on the <u>prevention of reflux of gastric contents into esophagus by :</u>

- ✓ Eating smaller meals .
- ✓ Avoiding stimulation of gastric secretions by omitting caffeine and alcohol .
- ✓ Refraining from smoking .
- ✓ Avoiding fatty foods—promote reflux and delay gastric emptying .
- ✓ Refraining from lying down for at least 1 hour after meals .
- ✓ Losing weight, if obese .
- ✓ Avoiding bending from the waist and/or wearing tight-fitting clothes or lifting heavy objects.
- ✓ Advice patient to report to health care facility immediately for the onset of acute chest pain—may indicate incarceration of a large paraesophageal hernia .

Thanks
For Listening