NUR2206

Module 3 – Gastrointestinal system

Learning Objective 1: Discuss and explain the pathophysiology, causes and structural changes clinical manifestations, investigations, nursing management and complications of patients with Oesophageal disorders: gastro oesophageal reflux disease, Gastric disorders: gastritis, peptic ulcer disease, Intestinal disorders: diverticular disease, inflammatory bowel disease, intestinal obstruction, appendicitis , peritonitis and biliary disorders: gallbladder disorders and pancreatitis

Oesophageal disorders

Gastroesophageal reflux disease (GORD):

Pathophysiology:

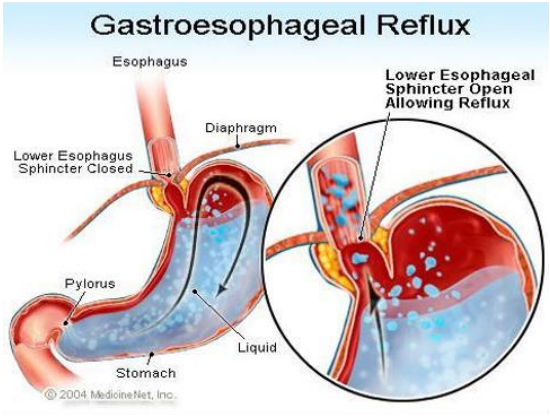
- Excessive exposure of the oesophagus to gastric contents
- Normally prevented by lower oesophageal sphincter and the crural diaphragm
- Gastric content is regurgitated (reflux) into the oesophagus from a defective sphincter

Clinical Manifestations:

- Heart burn
- Burning sensation in oesophagus (Pyrosis)
- Waterbrash (excessive salivary excretion)
- Regurgitation
- Dyspepsia
- Bad taste in mouth
- Chest pain

Investigations:

- Gastroscopy → first choice
- Ambulatory 24hour oesophageal pH monitoring → evaluate the degree of acid reflux
- Barium swallow → assists in the planning and management in those with persistent dysphagia or hiatus hernia



Medical management:

Pharmacological:

- Proton pump inhibitors → decrease the release of gastric acid
- H_2 receptor antagonist
- Antacids (Some available OTC)
- Prokinetic agents → accelerate gastric emptying

Surgical:

- Fundoplication → wrapping a portion of the gastric fundus around the sphincter of the oesophagus
  - May be done laparoscopically

Nursing Management:

- Education → avoid situations which decrease the lower oesophageal sphincter pressure or cause oesophageal irritation
  - Eat a low fat diet
  - Avoid caffeine, tobacco, beer, milk, food containing peppermint or spearmint and carbonated drinks
  - Avoid eating or drinking 2 hours before bedtime
  - Maintain normal body weight
  - Avoid tight fitting clothing
- Elevate head of the bed 15-20cm or elevate the upper body on pillows
- Administration of prescribed medications and symptom management

Complications:

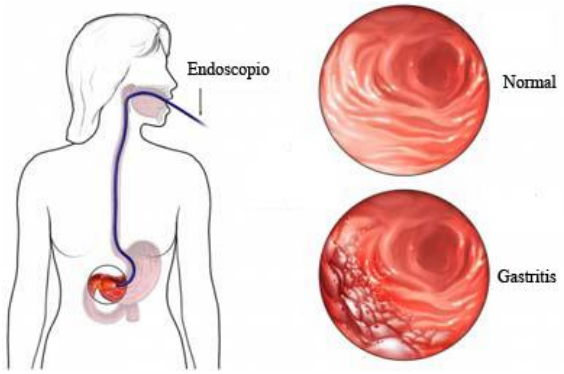
- Oesophageal ulcers
- Oesophageal stricture
- Barrett's oesophagus (abnormal cells)
- Oesophageal cancer

Gastric disorders

Gastritis - inflammation of the stomach. A common GI problem that can be acute or chronic

Pathophysiology:

- Mucous membrane becomes oedematous and hyperaemic (congested with fluid and blood)
- Membranes under goes superficial erosion
- Limited gastric juice is secreted with limited acid and much mucous



Clinical Manifestations:

- Acute → abdominal discomfort, nausea and vomiting, anorexia hiccupping and headache
- Chronic → epigastric discomfort, anorexia, heartburn, nausea, belching, vomiting and food intolerances, sour taste in mouth
- Epigastric discomfort, intolerance to spicy or fatty foods
- Slight pain relieved by eating
- Vitamin deficiency

Investigations:

- Endoscopy
- Urea breath test or biopsy during endoscopy to test for helipbactor pylori bacteria
- Physical assessment
- Stool assessment
- Ultrasound
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Medical management:

- IV therapy as can't drink or eat
- NGT
- Endoscopy
- Intubation
- Analgesia
- Antiemetic's
- Antibiotics if from H. Pylori

Nursing Management:

- Nil by mouth until symptoms subside, allowing gastric mucosa to heal
- Offer ice chips, then clear fluids and finally solid bland food after the symptoms have subsided
- Discourage smoking and alcohol consumption
- Avoid NSAID administration
- Encourage rest periods – cluster care
- Insertion/maintenance NGT
- Education on condition and treatment
- Administer antiemetic's if ordered
- FBC
- Vitals
- Monitor electrolyte balance
- Modified diet
- Encourage rest periods → cluster care

Complications:

- Peptic ulcers
- Anaemia
- Vitamin B12 deficiency
- Malnutrition
- Tumour growth

Peptic ulcer disease

Pathophysiology:

- An evacuation (hollowed out area) that forms in the mucosal wall of the stomach, in the **pylori's** (opening between stomach and duodenum)
- In the **duodenum** (first part of the small intestine)
- In the **oesophagus**
- The erosion may extend as deeply as the muscle layer or through to the peritoneum
- Damaged mucosa cannot secrete enough mucous to act as a barrier for hydrochloric acid (gastric acid)