Presenting problems in gastrointestinal

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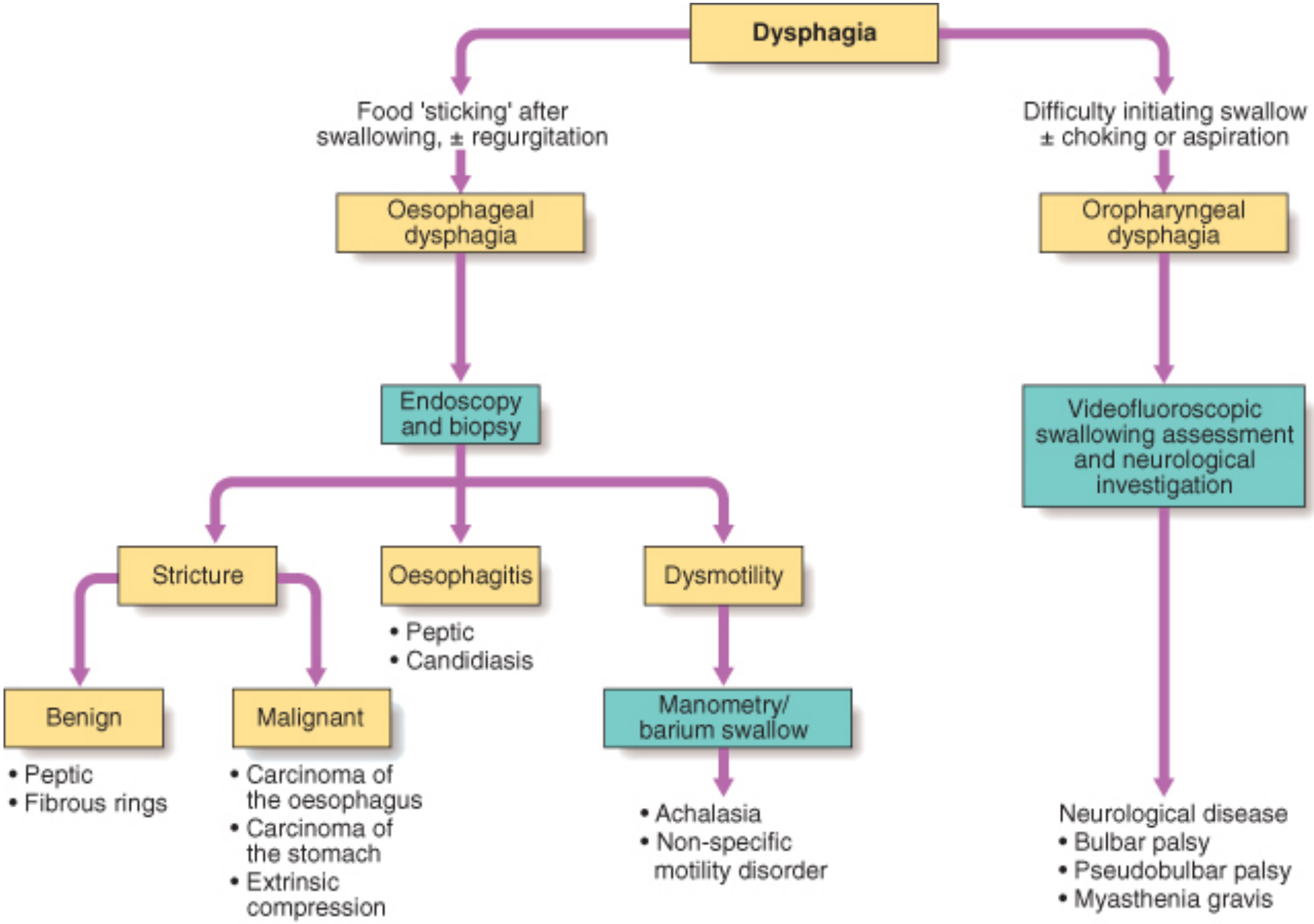
Dysphagia : difficulty in swallowing.

- **Differential diagnoses:**

1. **Globus sensation (anxious patient feels a lump in throat without organic cause).**
2. **Odynophagia : pain during swallowing; gastroesophageal reflux and candidiasis.**



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Dyspepsia: (Indigestion)

Collective term for any symptom thought to be originate from upper gastrointestinal tract.

1- Upper GIT disorders: peptic ulcer disease, acute gastritis, gall stones, motility disorders(esophageal spasm) and functional(non-ulcer dyspepsia and irritable bowel syndrome).
2- Other GIT disorders: Pancreatic diseases(cancer and chronic bronchitis), hepatic diseases(hepatitis and metastases) and colonic carcinoma.
3- Systemic diseases: Renal failure and hypercalcaemia.
4- Drugs: NSAID, iron and potassium supplements, corticosteroids and digoxin.
5- Others: Alcohol and psychological(anxiety and depression)

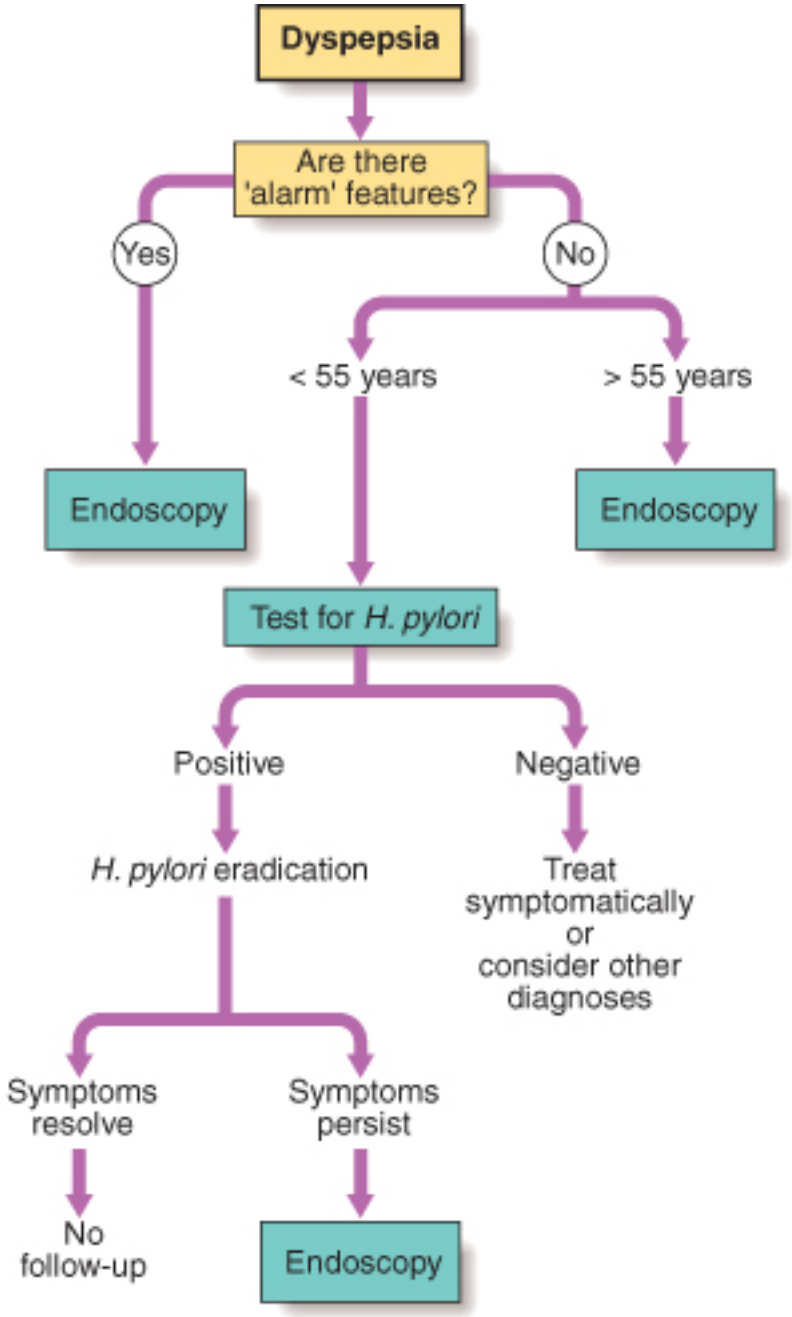
Carful history

- A-Elicit symptoms classical of specific diseases like hunger pain in peptic ulcer disease.
- B-Detect alarm features urgent investigations: weight loss,anaemia,vomiting ,haematemesis or melena,dysphagia and abdominal mass

Dyspepsia is a very common symptom, affects up to 80% of population and frequently no abnormality discovered on investigation specially in younger patient.

Those with alarm symptoms, those over 55 years with recent dyspepsia and younger patients unresponsive to treatment should be seriously investigated,

Clinical examination: presence of anaemia, weight loss, lymphadenopathy, abdominal mass and signs of liver diseases(jaundice and ascites).



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vomiting

Highly integrated and complex reflex involving both autonomic and somatic neural pathways. There will be synchronous contraction of diaphragm, intercostal muscles and abdominal muscles raises intra-abdominal pressure and with relaxation of lower esophageal sphincter results in forcible ejection of gastric contents.

Vomiting is usually associated with nausea, retching, salivation, anorexia or dyspepsia.

Vomiting should be differentiated from regurgitation and whether it is acute or chronic(recurrent).

Associated symptoms like abdominal pain, fever, diarrhea, relationship to food, drug ingestion, headache, vertigo and weight loss should be sought.

Clinical examination may reveal signs of dehydration(dry skin and tongue with loss of skin turger, sunken eye), fever and infection.

Evidence of abdominal masses, peritonitis or intestinal obstruction also should be checked.

Neurological signs are also important like papilloedema, nystagmus, photophobia and neck stiffness.

Major causes of vomiting

1- CNS disorders: Vestibular neuronitis, Migraine, raised intracranial pressure and meningitis.
2- Gastro-duodenal: Peptic ulcer disease, Gastric cancer and gastroparesis.
3- Uraemia.
4- The acute abdomen; Appendicitis, cholicystitis, Pancreatitis and intestinal obstruction.
5- Metabolic: Diabetic ketoacidosis, Addison's disease and cyclical vomiting syndrome.
6- Infections: Hepatitis, Gastroenteritis and urinary tract infection.
7- Drugs: NSAID, opiates, digoxin, Antibiotics and cytotoxics.
8- Alcoholism.
9- Psychological.

Gastrointestinal bleeding

Acute upper gastrointestinal bleeding

Most common GI emergency. Common causes are:

1- Peptic ulcer(35-50%): NSAID and H, pylori.
2- Gastric errosions(10-20%): NSAID and Alcohol.
3- Esophagitis(10%): usually with hiatus hernia.
4- Esophageal varices(2-9%): chronic liver disease and cirrhosis, potal hypertension and portal vein thrombosis.
5- Retching: Mallory-weiss tear(5%).
6- Cancer of stomach or esophagus(2%).
7- Vascular malformations(5%).
8- Aortic graft: aorto-duodenal fistula(0.2%).

Clinical assesment

Haematemesis may be red with clots that indicates severe bleeding or black(coffee ground) which indicates less severe bleeding.

Syncope: due to hypotension from intravascular volume depletion.

Symptoms of anaemia suggest chronic rather than acute bleeding; Why?

Melena: the passage of black tarry stool contains altered blood and indicates bleeding from upper GIT but occasionally bleeding from right colon. Results from the action of digestive enzymes and bacteria upon hemoglobin.

Severe acute upper GI bleeding can cause maroon or bright red stool.

Management

1- Intravenous access using at least one large-bore canula; Why?
2- Initial clinical assessment:
   A- Define circulatory status; severe bleeding causes tachycardia, hypotension and oliguria and the patient will be cold, sweaty and agitated.
   B- Seek evidence of liver disease: jaundice, cutaneous stigmata, hepatosplenomegaly and ascites.
   C- Define comorbidity: cardiorespiratory diseases, cerebrovascular and renal diseases. These are important because:
      1- Worsened by acute bleeding.
      2- Increases the hazards of endoscopy and surgery.

3- Blood tests:

A- Full blood count: chronic or subacute bleeding causes anaemia but the Hb. Concentration may be normal after acute bleeding until hemodilution occurs.Why?

B- Urea and electrolytes: blood urea increases as the absorbed products of luminal blood metabolized by the liver.

C- Liver function tests.

D- Prothrombin time: if you think of liver disease or in patient on anti-coagulant therapy.

E- Cross-matching of at least 2 units of blood.

4- Resuscitation:

Intravenous crystalloid fluids or colloids given to restore blood volume and pressure.

Blood transfusion is indicated in shocked patient and if Hb. Concentration is less than 100 gm/L. Why?

Normal saline should not be given to a patient with liver cirrhosis to avoid development of ascites.

Central venous pressure(CVP) monitoring is indicated in severe bleeding especially in patients with cardiac disease to define volume of fluid replacement and to identify rebleeding.

5- Oxygen: by facemask to shocked patient.

6- Endoscopy: done after adequate resuscitation. It is diagnostic in 80% of cases.

Theraputic: Thermal modality(heater probe), injection of diluted adrenalin into bleeding

Points and application of metallic clip. Endoscopic therapy may stop active bleeding and if

Combined with PPI therapy intravenously can prevent rebleeding and avoid the need for

Surgery.

7- Monitoring: hourly chart of pulse, blood pressure and urine output.

8- Surgical operation: urgent surgery is indicated if:

A- Endoscopic haemostasis fails to stop active bleeding.

B- Rebleeding occurs on one occasion in elderly or frail patient, or twice in younger, fitter patient.

Following successful surgery(under-running, local excision, pyloroplasty or partial gastrectomy), all patients should be treated with H. pylori eradication therapy if positive and should avoid NSAIDs. Ulcer patients need confirmation of successful eradication by urea breath testing.

Risk factors for death in acute upper GI bleeding

Increasing age: Increased risk over age 60 and specially in very elderly.

Comorbidity : Advanced malignancy, renal and hepatic failure will cause high mortality.

Shock: Pulse more than 100/min. and systolic blood pressure less than 100 mmHg.

Diagnosis: Varices and cancer have the worst prognosis.

Endoscopic findings: Active bleeding and non-bleeding visible vessel have high risk of continuing bleeding.

Rebleeding: Defined as fresh hematemesis or melena associated with shock or a fall of Hb. More than 20 Gm/L. over 24 hours. Rebleeding causes 10 folds increase in mortality.

Lower gastrointestinal bleeding

Causes:

1- Severe acute: diverticular disease of colon, ischaemia, angiodysplasia and meckel's diverticulum. Unusual medical emergency; patient presents with severe red or maroon diarrhea with shock.

2- Moderate(chronic or subacute):
   A- Anal diseases: Fissure in ano and haemorrhoids.
   B- Inflammatory bowel diseases: ulcerative colitis and crohn's disease.
   C- Colonic carcinoma.
   D- Large polyps.
   E- Angiodysplasia.
   F- Radiation enteritis.
   G- Solitary rectal ulcer.

The management is similar to that of upper GI bleeding but with lesser emergency and lower GI endoscopy can be both diagnostic and therapeutic.

3- Obscure major GI bleeding: In which upper endoscopy and colonoscopy have failed to document the diagnosis. Mesenteric angiography with or without embolization is indicated and if negative enteroscopy is used to visualize the proximal small intestine.
4- Occult GI bleeding: blood or its products are present in the stool but cannot be elicited by the patient. Up to 200 ml/day can be lost causing iron deficiency anaemia and indicating serious GI disease. The most important and serious cause is colorectal cancer specially carcinoma of caecum.