

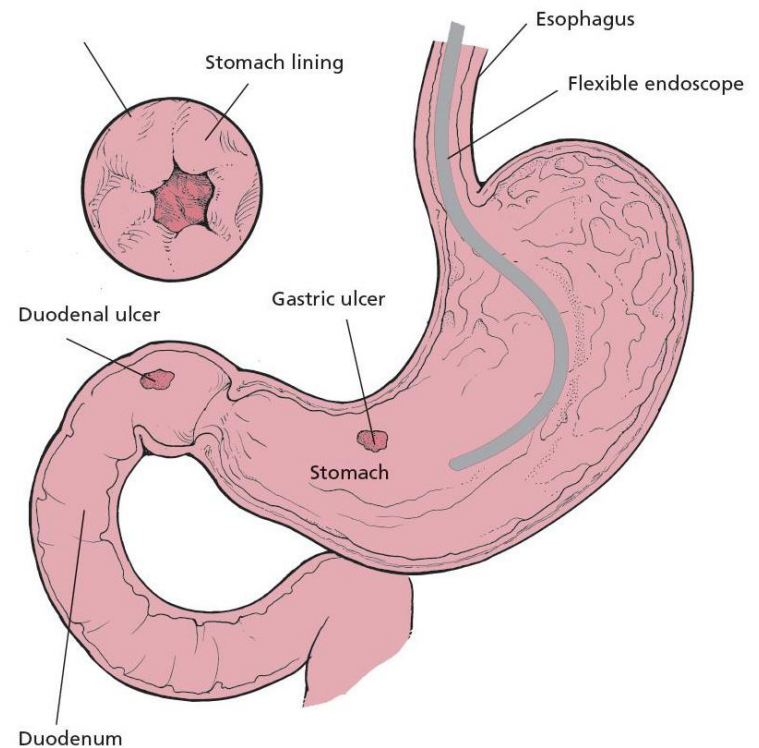
Peptic Ulcer & Its Complications

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Introduction

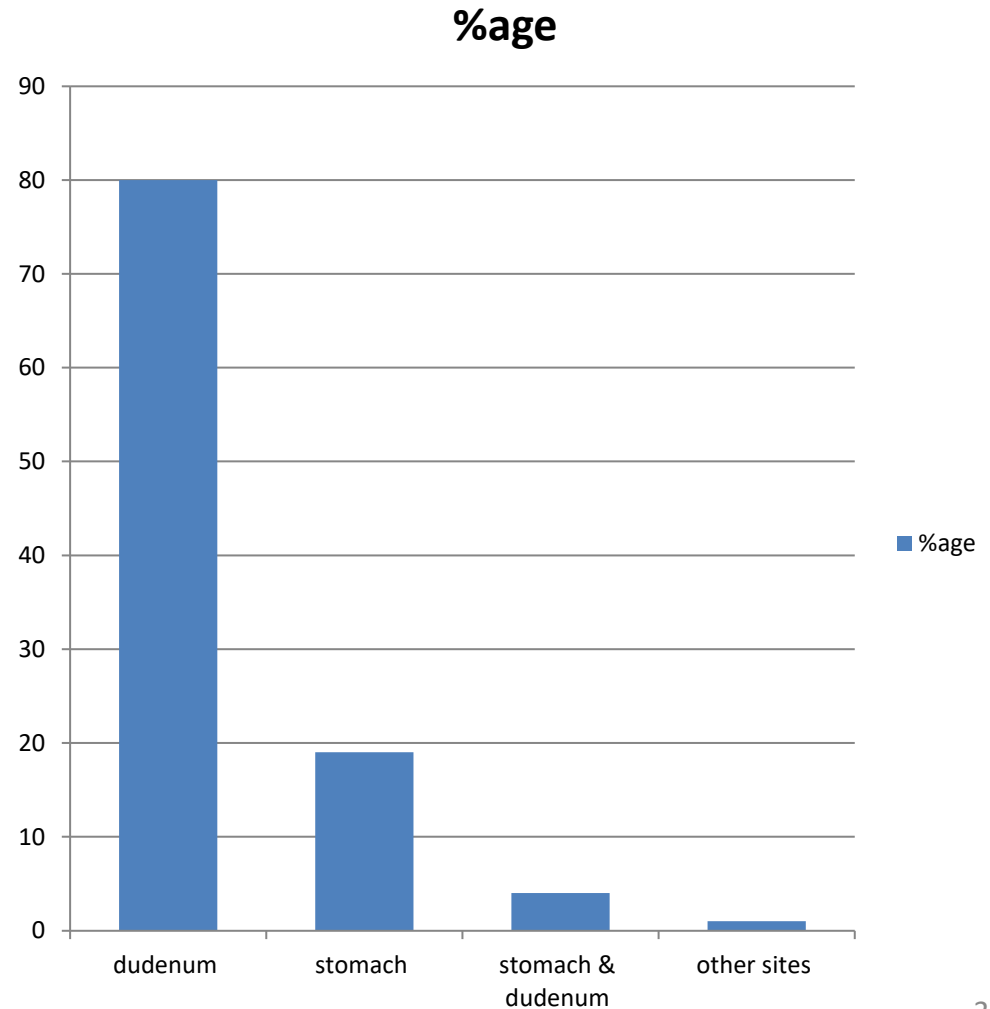
- Common sites are 1st part of duodenum & lesser curvature of stomach
- But also on stomach, esophagus, Meckel's diverticulum

Peptic ulcer viewed through an endoscope



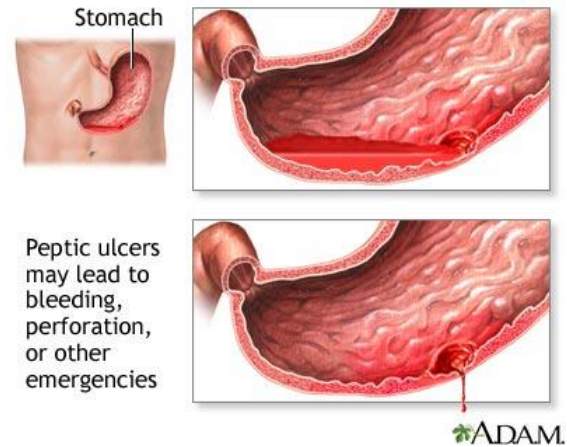
Introduction

- Chronic
- usually solitary lesions
-
- 80% - duodenum
- 19% - stomach
- 4% - stomach & duodenum
- 1% - other sites oesophagus, gastroenterostomy, jejunum, Meckel's diverticulum



Predisposing factors

- **H. pylori**
- **Drugs (NSAIDS)**
- Smoking & alcohol
- Stress
- Diseases like cirrhosis, CRF, COPD, Hyperparathyroidism
- Familial
- Gastrinoma
- Incidence decreasing
- Male : female = 4:1
- Mortality higher in poor

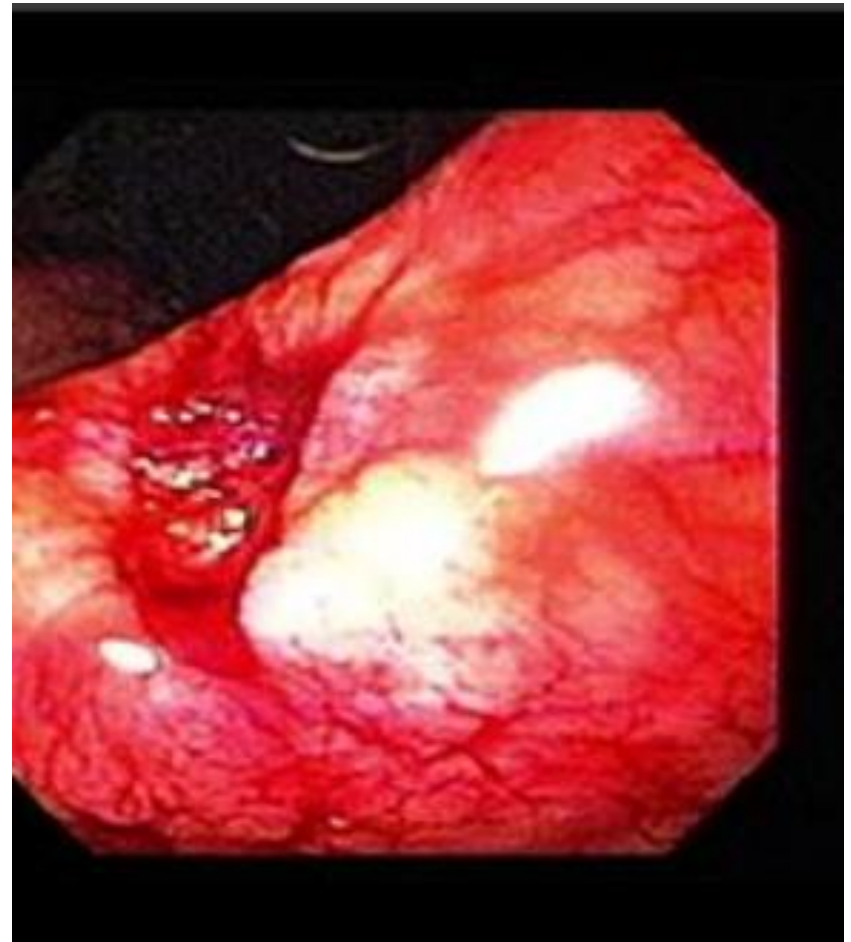


PATHOGENESIS

- An imbalance between mucosal protective mechanisms against acid, and aggressive forces that damage the gastric mucosa
- Aggressive forces: gastric activity and pepsin activity
- Protective mechanisms
- *H. pylori* causes a local inflammatory reaction and secretes enzymes that break down the gastric mucosal barrier, and also enhances gastric acid secretion and decreases bicarbonate production

Pathology

- 80% solitary
- 80% in duodenum out of these 90% in 1st part
- In stomach at lesser curve
- 50% < 2 cm
- 10% > 4cm

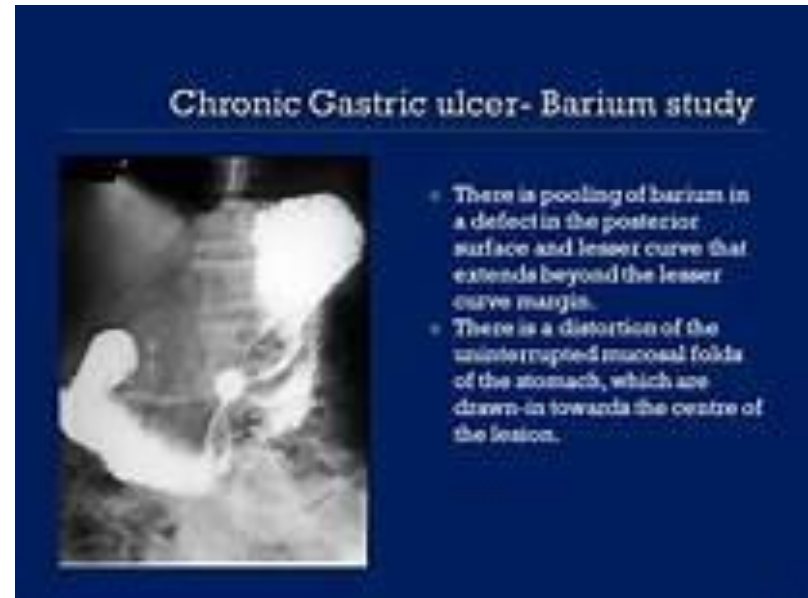


Clinical Features of Peptic Ulcer

- Epigastric pain
- Dyspepsia
- vomiting
- Alteration in weight
- Bleeding
- Epigastric Tenderness may present
- Presentation as perforation

Investigations

- OGD + biopsy+ CLO test
- For CLO test-- Bismuth containing medicine , PPI & Antimicrobial medicines stop for 4/52
- Urea Breath test
- Ba meal ?



Medical Management

- Acid suppression
- Eradication of *H. pylori*
- Stoppage of NSAIDS & aspirin
- *H. pylori* infection diagnosed by serology, antral biopsy, Urea breath test

***H. PYLORI* BACTERIA**

- Gram negative
- Spiral rod
- Unipolar flagella
- Microaerophilic
- Urease positive*

*Most important
character



*Scanning microscopic view of *H. pylori*

Medical Management

Regimen I

- PPI
- Clarithromycin 500 mg BD 1/52
- Amoxicillin 1gm BD or
Metronidazole 400mg BD 1/52

Regimen II

- PPI
- Bismuth subsalicylate 2 tablets
OD 14/7
- Metronidazole 200mg QDS 14/7
- Tetracycline 500mg QDS 14/7

Indications for Surgery Duodenal Ulcer

- Obstruction
- Bleeding
- Perforation
- Failure of Medical treatment

Surgery

- Over sewing the bleeding vessel
-
- Vagotomy with gastric drainage procedures
- Antrectomy with truncal vagotomy
- Gastrectomy
- Omental patch repair is sufficient for small perforated ulcer

GASTRIC ULCER

Indications for surgery

- Failure to heal after 3 months of conservative therapy
- Recurrence
- Dysplasia or carcinoma
- Perforation, persistent bleeding

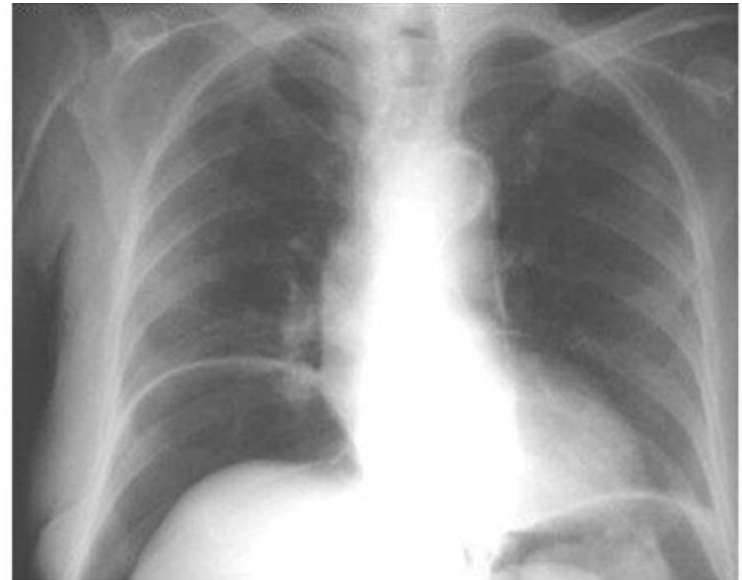
Surgery

Gastric Ulcer

- Over sewing the bleeding vessel
- Gastrectomy
- If prepyloric ulcer, can treat similar to duodenal ulcer

Perforated Peptic Ulcer

- Little change in Incidence
- Epidemiology of perforated ulcer changed in West
- Previously most Pts middle aged male : female 2:1
- Now more elderly females

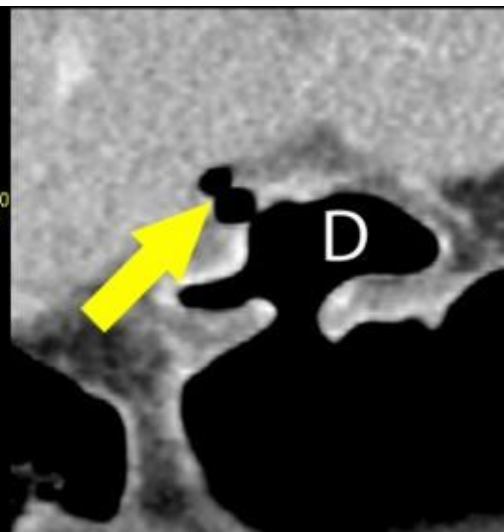
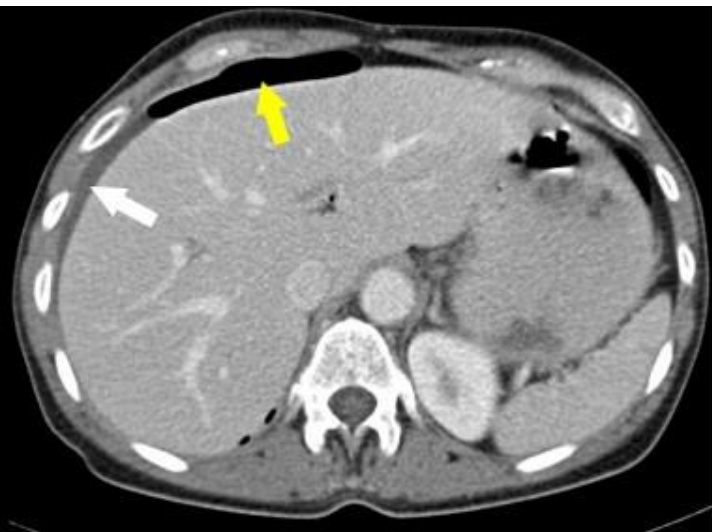
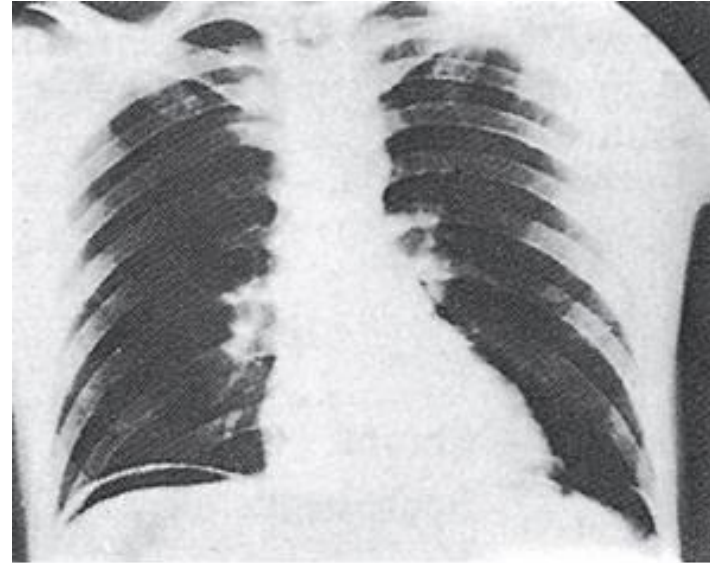


Clinical Features Perforated Peptic Ulcer

- H/O Peptic ulcer
- Sudden onset of severe of generalized abdominal pain
- Later on bacterial peritonitis
- Deterioration of Pt
- Board like rigidity
- Pain in epigastrium & RIF
- So diagnosis difficult
- If posterior or incisural gastric ulcer perforate in lesser sac—more difficult diagnosis

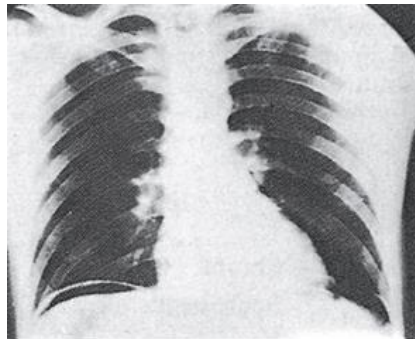
Investigations

- CRX
- CT Scan



Perforated Duodenal Ulcer

- Mortality is higher than bleeding ulcer (10.6% : 2.5%)
- Acute abdomen , peritonitis/
Pneumoperitoneum
- Resuscitation
- I/v antibiotics
- Surgery open or laparoscopic repair
- Peritoneal wash out
- **Occasionally** stable sealed perforation by conservative way

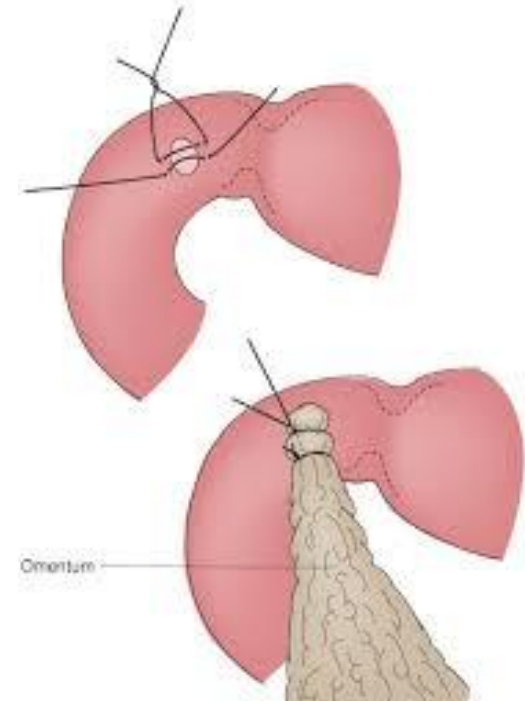


Surgical Options

- Simple closure & over sewing
- HSV
- Vagotomy & Drainage
- Vagotomy & Antrectomy

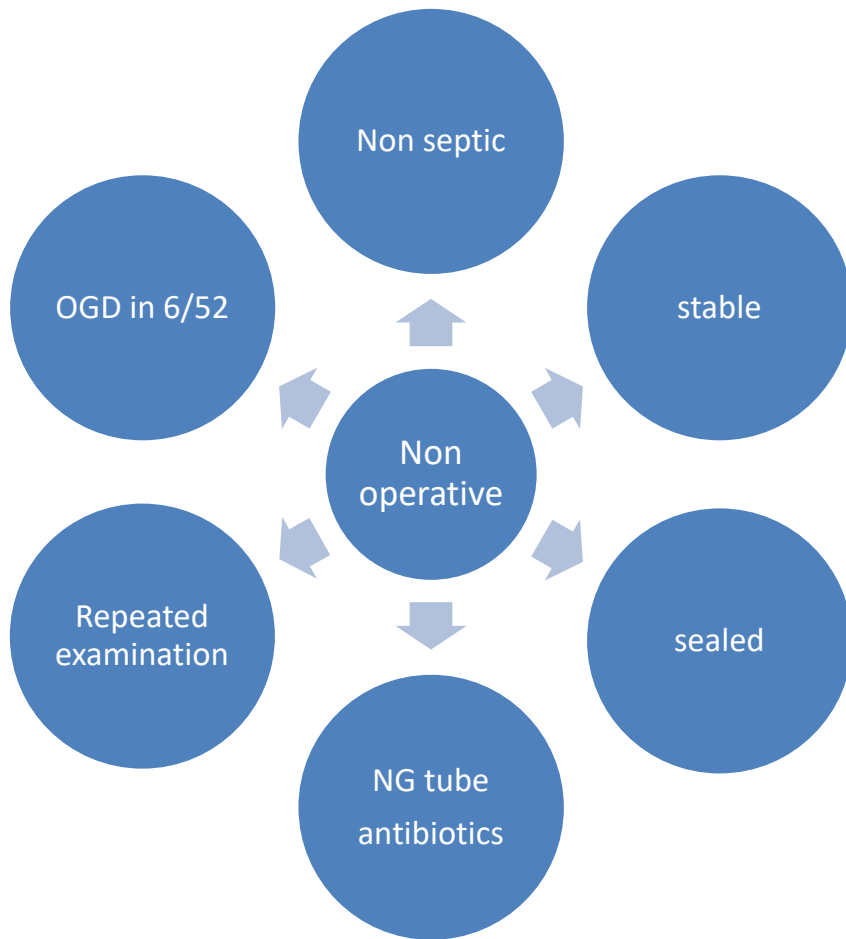
Perforated Duodenal Ulcer

- Anterior surface post pyloric region
- < 5 mm
- simple omental patch
- Vigorous peritoneal lavage
- Sump Suction tube
- Liquid diet on 2nd or 3rd day
- Triple therapy





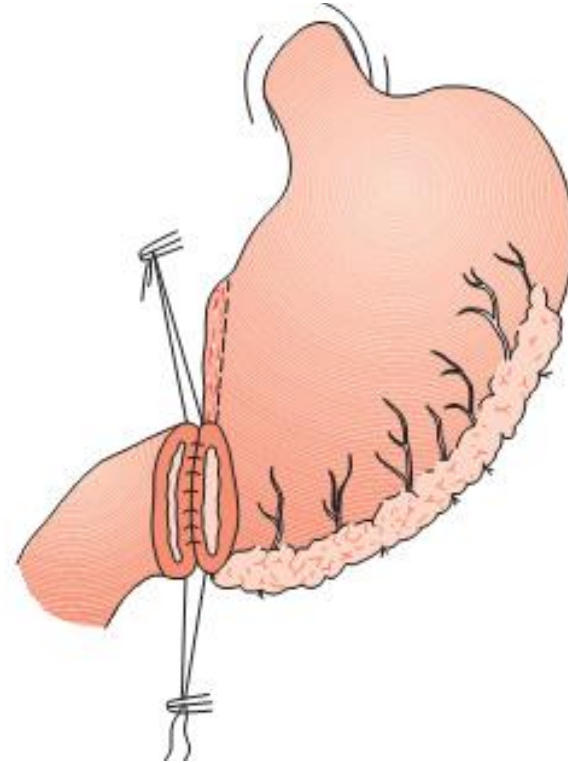
Management of Gastric Ulcer Perforation



- Only in very selective cases non operative management
- **BUT**
- If peritonitis progresses
- No improvement in 12/24
- Surgery needs to be done

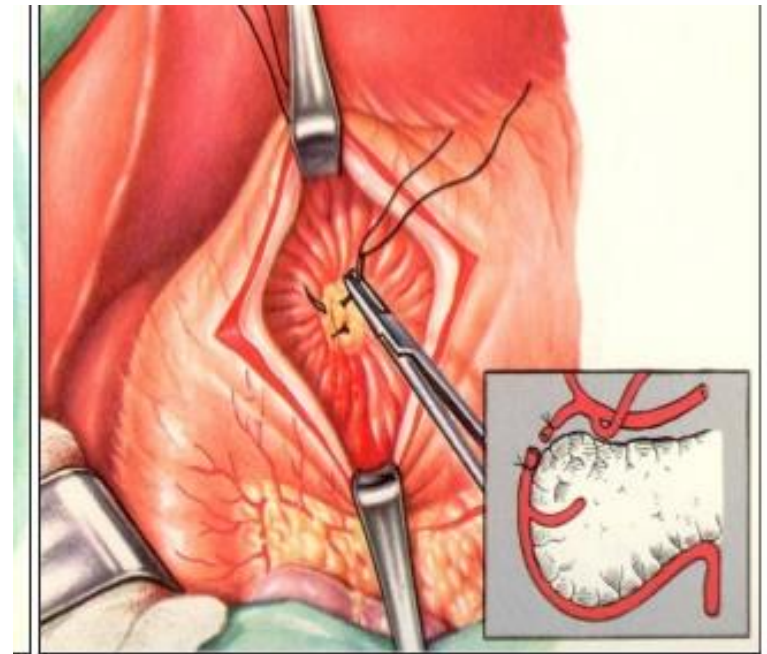
Surgical Treatment of Perforated Gastric Ulcer

- Simple patching of hole and biopsy
- Distal gastrectomy Billroth I anastomosis



Bleeding Duodenal Ulcer

- No significant change in incidence
- Continuous infusion of PPI
- Hypotensive Pts. Transfusion needed & posterior ulcer need Surgical Team R/V



Suture of bleeding duodenal ulcer

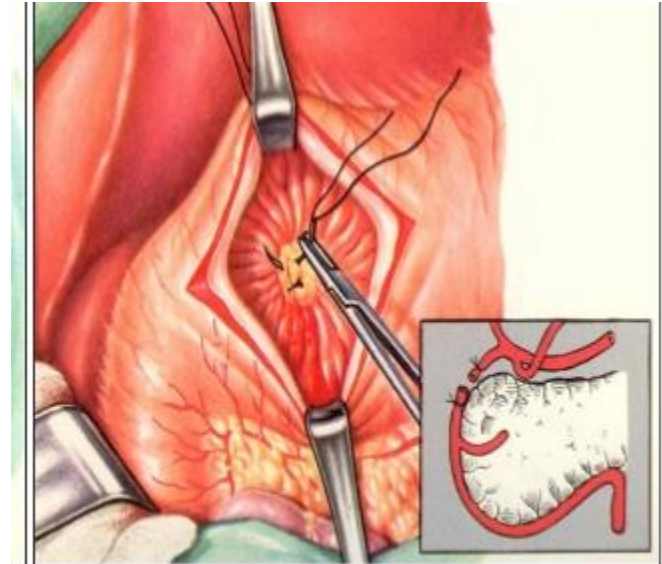
Endoscopic Treatment

- Diathermy
- Epinephrine injection
- Clipping



Indications for Surgery

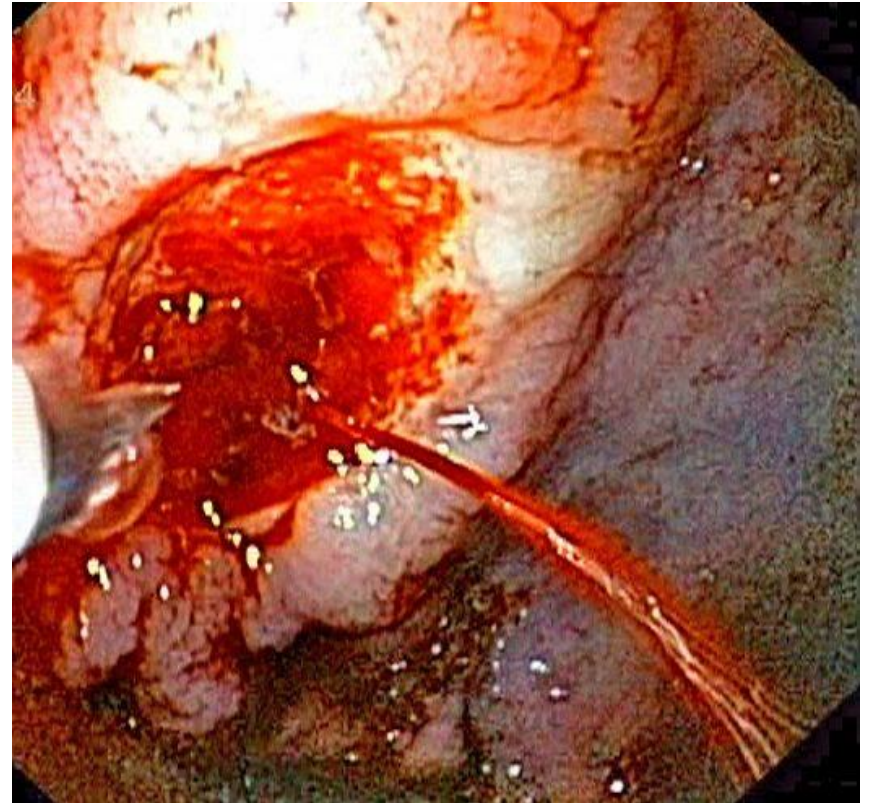
- Haemodynamic instability
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- Failed endoscopic treatment
- Visible vessel



Suture of bleeding duodenal ulcer

Management of Bleeding Gastric Ulcer

- Appreciable mortality
- 80% stop itself
- Resuscitate & achieve stability
- Endoscopic treatment like heat probe, injection or both
- Surgery may needed as well



Gastric Ulcer Obstruction

- Usually complication of scarred duodenal ulcer
- But recurrent gastric ulcer—stricture
- PPI
- Correction of electrolytes
- OGD
- Balloon dilatation
- Stenting
- Surgery

Obstructing Duodenal Ulcer

- Functional gastric outlet obstruction
- Pain, nausea & vomiting of short duration (days)
- Improve by NG suction
- PPI
- Do not need surgery
- OGD– oedema & active ulceration

Obstructing Duodenal Ulcer

- Symptoms for months
- Pts with weight loss, nausea & vomiting
- Distended epigastrium
- Succession splash
- Needs surgery
- OGD– distended stomach with narrow gastric outlet
- Balloon dilatation
- HSV/ GJ
- Vagotomy & antrectomy

Summary

- Peptic ulcer disease serious and common
- H. pylori
- OGD
- Medical treatment very effective
- Complications like bleeding, perforation& Obstruction
- All dealt on its own merits

Thanks

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