Stomach - Upper GI (S2)

Notes by Dr. Fahad Rasool

Final year

0300-8121234

SU P PR

D→ A 50 yr. old male banker presents with haemetemesis, 2-3 times a day for past 02 days. On asking he admits passing tarry colour stool. Sometimes during past- 06 months O/E pallor is only the finding.

D.D ↓

Peptic ulcer Disease

Duodenal perforation

Gastric perforation

Gastric CA.

Investigations → Next page

* Ultrasound Abdomin
* CT scan Abdomin
* Lymphnodes (Virchow's node)

Q- Peptic ulcer Disease

- A 55 yr. banker a-personality presents in A&E with dizziness, cold, sweating. O/E He is pale, Tachycardiac, tachypnic with Bp 90/60 mm of Hg. Abdomin is soft and non-tender.

- Diagnosis – Peptic ulcer Disease
- Investigation
- Management

Investigation : Start Rx with PPI initially

ⓐ- Gastro-duodenascopy

Upper GI endoscopy (Gold-Standard)

ⓑ- Quick urease Test (CLO)

If H.pylori present in biopsed tissue

Urea
↓ urease
Ammonia → change in colour of medium

ⓒ- Carbon-13 labelled urea breath Test

ⓓ- Stool Test 90% sensitive
95% specific

ⓔ- Histology + culture :

Gold-standard test
for Hopylori infection.

ⓕ- Serum gastric level :

To rule out gastrinoma.

Rx :

Medical Rx :

- PPI's
- IV PPI's - Patients showing complication of ulcers
- Stop smoking + alchonal
- Patients on NSAIDS, Asprin → Should use H_2 blockers concomitant PPI's

Eradication Therapy :

R-1 → PPI B.I.d + Clarithromycin 500 mg B.I.D + Amoxicillin 1000 mg B.I.D] 02 weeks

R-2 → PPI B.I.d + Clarithromycin 500 mg B.I.D + Metronidazole B.I.D] 02 weeks

R-3 → PPI + Amoxicillin 1000 mg B.I.D] 05 days

↓

PPI + Clarithromycin 500mg + tinidazole 500mg B.I.D]

surgical :

→ ① surgery for duodenal ulcer :

Billroth I gastrectomy

Billroth II gastrectomy

Gastrojejunostomy

→ ② vagus denervation + drainage procedure.

Truncal vagotomy + Drainage.

selective vagotomy + Drainage.

Highly selective vagotomy.

, Perforated peptic ulcer

, A 60 yr. old male suffering from Rheumatoid arthritis for several years presents in A&E with acute abdomen pain for past 12 hrs. O/E he is anxious BP 100/60, Pulse 120/min R/R 20/min. Abd. examination revealed rigid abdomen with tenderness all over and absent bowel sounds?

→ write short note on congenital hypertrophic pyloric stenosis? (PPU) NEXT

→ A 50 yr. woman presents in emergency with sudden onset of severe epigastric pain that spreads whole of her abdomen. She has habit of self-medication for her back-pain for six months. O/E She is in shock like state with distended still Abdomen & generalized rigidity.

→ 50 yr. old smoker presents in emergency with severe upper Abd. pain which becomes generalized in hours. He is known case of OA. His pulse is 110/min Bp 90/60 mmHg with sunken eyes and he is not mouring his abdomin with respiration.

- Diagnosis → PPU
- Investigation
- Rx.

*

⇒ Bleeding peptic ulcer is not perforated peptic ulcer.

Investigation:

. Clinical diagnosis

① - X-ray chest erect → Air under diaphragm.

② - leucocytosis ← CBC

USG Abdomen → Free fl...

Serum amylase - Rule out Pancreatitis (04 times ↑)

★ CT-scan Abdome - More accurate
differentiate other cause
of acute abdomin

MCQ's →

Treatment : Admit

Conservative : History - 02 wide bore IV-Cannula.
- IV-Fluids
Nasogastric aspiration
Monitor urine output
- IV-antibiotics (Cephalosporin
Metronidazole)

Analgesics
Arrangement of Blood

surgical :

open → General anesthesia
Upper mid-line incision
Peritoneal cavity washed. Normal saline
Duodenal perforation - stitching in transverse direction.

Omental patch over perforation - to avoid leak

Stomach perforation - margins refreshed
Biopsy from margin
Perforation closed.

Massive " - Billroth II gastrectomy
or
subtotal gastrectomy.

Laproscopically

ast-ope :

IV-Fluids

Electrolyte

Anti-biotics

Analgesics

Life-long proton pump inhibition

Eradication Therapy for H.pylori infection.

↓

R_1 - PPI (B·1·D) + Clarithromycin 500mg (B·1·D) + Metronidazole (B·1·D)] 02 weeks.

R_2 - P.P.I (B.1.D) + Clarithromycin 500 mg (B·1·D) + Amoxicillin 500 mg (B·1·D)] 02 weeks

R_3 - P P·I - (B·1·D) + Amoxicillin 1000mg] 05 days
Then

P.P.I (B·1D) + Clarithromycin 500 (B·1·D) + Tinidazole] 05 days

Preventive

No smoking

No alcohol

Hypertrophic Pyloric stenosis :-

→ one month old neonate presents with projectile non-bilious vomitting off and on. O/E there is 3×2cm non-tender mass is palpable in the epigastrium.

→ A 6 month old. baby boy presents with recurrent vomitting. The baby is always hungry after an episode of vomitting which is non-bilious.

→ write short on congenital pyloric stenosis?

→ A male neonates presents to ER with vomitting, which is recurrent & projectile, during test feed there is visible peristalsis in upper Abdomin from left to right.

Scenario points

- ✓ Prev. History of Acid peptic disease
- ✓ Projectile or effortless vomitting
- ✓ Gastric content
- ✓ Bile Absent
- ✓ weight loss + Electrolyte disturbance
- ✓ During Test feed visible peristalsis from L→R

- Diagnasis
- Rx
- complications

Rx :-
- ✓ Admit - History examination.
- ✓ → IV-fluids containing Na
- → Nasogastric aspiration
- → Correct Asid-Base dearrangement
- → Early pyloric stenasis → Resolve spontaneously
- → Severe → Endoscopic Balloon Dilation.
  surgical pyloroplasty / Gastrojejunostomy

Complications:

Nutritional Deficiency

Anemia (Iron) - A

Vit - B_{12}

C - Calcium Deficiency

Malabsorption

↓ Apetite - A

Recurrent ulceration

D - Dumping syndrome

Alkaline reflex gastritis - A

Past-vagotomy

D - Diarrhea

Gastric CA

=

Gall-stone formation

=

55 yr. old male presents in surgical OPD with c/o dysphagia of recent onset bloating & weight loss. O/E he is anemic, cathelic & palpable supra-clavicular L.N.

65 yr. male presents with H/O anorexia, epigastric pain and occassional coffee calour vomiting. His gastroscopy reveal excavalent lesion along with lesser curvature of stomach.

- Diagnasis
- Investigation
- R_x.

Physical signs + causes

Diagnasis → Gastric carcinoma

Causes → Smoked food
Excessive salt
↓ Intake of fresh-vegetables
Chronic gastritis
Pernicious Anemia
Previous Gastric surgery
Mutation of E-cadherin

Physical signs →

5P's.

Palpable Abdominal mass
Palpable supraclavicular lymph nodes (Virchow's nodes)
Palpable peri-umbilical lymphnode (Sister Mary Joseph nodule)
Palpable ovarian mass (Krukenberg tumor)
Palpable mass on DRE (Blumer Shelf)

Investigations:

Gastroscopy:

Fiber optic gastroscopy - Screening
- Diagnasis

Endoscopic USG:

- To define
- limit of spread cancer
- Identify lymph node invaluement.

CT-scan, Abdomin, Pelvis, chest:

- Local extent of Tumor
- lymph node invaluement
- systemic metastasis. (liver lungs)

PET-scan: Pre-operative staging of gastro-oesophageal

Pre-ope laproscopy:

small peritoneal implants
small liver metastasis.

Staging: UICC

T-staging

T_1 - Tumor invalus lamina propria
T_2 - Tumor invades muscularis or sub-serasa
T_3 - Invalus serasa
T_4 - Invades adjacent organs.

N-staging

No - No lymph node invalued
N_1 - metastasis in 1-6 regional L.nodes
N_2 - Metastasis in 7-15 regional L.nodes
N_3 - Metasis more Than 15 Regional L nodes.

M-staging No distant metastasis
Distant metastasis

Rx:
① - Subtotal gastrectomy
② - Total gastrectomy

Subtotal gastrectomy:

- Ligation & division of R+left gastric and gastroepiploic aotries.
- En-block resection of stomach + 75-80% pylorus + 2cm of duodenum.
- Greater omentum + lesser omentum + lymph tissue is also removed.

By →
- Laparoscopically
- Billroth II gastrojejunostomy

Total gastrectomy

Removal of omentum + D_2 lymphadenectomy
Adjacent organs if invalued

By → Roux-en-y esphageojejunostomy.

Splenectomy – Indication
complications

Indication :

TRD(P) w.

* Traumatic :

✓ Blunt or penetrating injury of upper Abdomin
✓ Iatrogenic injuries – Colectomy
Paraesophageal hernia
Nephroctomy
Fundoplication

* Red-Cell Disorders :

✓ Congenital – Hereditory spherocytosis ←
Sickle cell disease ←
Thalasemia ←
✓ Acquired – Auto-immune hemalytic anemia ←

* Platelet Disorder :

ITP ✓ Idiopathic Thrombocytopenic purpura
TTP ✓ Thrombotic Thrombocytopenic purpura.

* White cell + Bone marrow disorder

Lymphoma
Hodgkin's Disease
Myelofibrosis
CML, AML

Complications :

Intra-operative
↓
Hemmorrhage
Bowel injuries
Injureis To pancreas
Diaphragmatic injury

Early Past-ope
↓
✓ Pulmonary – atelactasis
Pneumonia
P-effusion
sub-phenic Abcess
wound infection, hematoma
Past-ope ileus, Post-ope-gastric dilatin

Late
↓
Opportunistic
Past-ope infectin

Tracheastomy - indication
Complication

Indication:

* Upper air-way obstruction
  - Tumors of laynx, phanynx, oropharynx
  - Infections (Epiglottitis)
  - Bilateral vocal cord paralysis
  - Trauma
  - Foreign body obstruction
  - Sub-glottic or tracheal stenosis
* Mechanical ventilation
* Pulmonary Toilet
  - Congestive cardiac failure
  - Infection
  - Pulmonary edema
  - Bulbar palsy
* Elective procedures

Complication:

↓

Immediate

Hemorrhage ✭

Air-embalism ✭

Apnea

Local Damage ✭ - Thyroid cartilage
- Cricoid cartilage
- Recurrent laryngeal nerve

✭ Cardiac arrest

✭ Pneumothorax / Pneumomediastinum

Intermediate

↓

Displacement of Tube ✭

Sub-cutaneous emphysema ✭

Infections ✭

Scabs + Crusts

Dysphagia

Tracheal necrosis

Late

↓

✭ Tracheal sten

Difficulty e decann

✭ Trachéo cutane

Fistul