Lower GI

↓

Hirschprung's Disease
Intestinal obstruction
Adhesive G. obstruction
Intestinal stomas
CA-Colon-rectum

Notes by Dr. Fahad Rasool
F16-040
Final year
03008121234

=> Hirschprung's Disease

Q→ write a short note on Hirschprung's Disease?

Characterized by the congenital absence of ganglion cells in the nueral plexus of intestinal wall.

Aganglionic segment = Remain contracted

Ganglionic segment = Dilated

75 % = Rectum + Sigmoid colon.

Clinical Features :

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In Neonates

- Delayed passage of meconium
- Distension of Abdomen
- Bilious Vomitting

↓

In old-child

- Chronic constipation
- Distension
- Failure of Thrive.

Diagnosis :

Full Thickness rectal biopsy

Barium enema. - Shows conning at junction of aganglionic and Transient Zone.

Anorectal Manometry.

Treatment :

"Pull Through operation" - Duhamel
Soave
Swenson
Transnasal procedure.

Ganglionic Ganglionic

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=> Intestinal Obstruction

45 yrs old female is reffered to haspital by her GP with 02 days history of intermittent pain abdomin followed by vomiting + constipation. O/E Abdomin is distended with hyperactive boul sounds

Q- 50 yr. old female hours wife presents with 02 history of intermiltent clocilcy abdominal pain, vomiting and constipation for last 02 days. O/E She is dehydrated, afebrile and normotensive. Abdominal examination shows lower mid-line scar from previous hysterectomy & moderate distension and hyper-active bowel sounds.

- Diagnasis - Intestinal Obstruction
- Investigations
- Treatment (management)

Inuestigation :

Abdominal examination - Abdominal scar
Hernial orifice

Digital rectal examination

CBC

Liver function Test

Serum electralyte

urea, creatinine + amylase

Glucose level

Notes by : Fahad Rasool

Radiological :

X-ray Abd → supine posture

Dilated Bowel loops

Dilated loops of ileum - centrally located

Dilated loops of Jejunum - Presence of valvulae Conniventes

Large bowel - Haustrations

CT-scan Abdomin

Tells us

- Level of obstruction
- Degree of obstruction
- Cause - Valvulus
  Hernia
  Luminal
  Mural
- Degree of ischemia
- Free fluid + Gas.

Treatment :

Conservative (Resuscitation)

① - Nasogastric aspiration :

by passage of Nasogastric Tube

② - Fluid + electralyte replacement :

To over-come hypovalemia

③ - Catherization

To measure urine output.

surgery :

"The sun should not both rise and set on a case of unrelieved acute intestinal obstruction"

Indication :

Obstructed or strangulated external hernia
Internal intestinal strangulation
Acute obstruction.

* Caecum - Collapsed in small bowel obstruction.
Dilated in large bowel obstruction

Relief of obstruction

Exploratory
Laprotomy + Minimal invasive surgery.

Check the viability of Gut

Signs of non-viability	Signs of viability
Dark color ~~steel~~ gut	Light colour gut
Loss of peristalsis	Peristalsis may be observ
Dull + Lusterless	Shiny + Firm
Mesentry does not bleed if pricked	Mesentry bleeds if pricked.

Complication of Intestinal obstruction

Hypovalemia
Shock
Renal-Failure
Operitonitis
Septicemia
ARDS

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→ An elderey man known case of chronic constipation presents in emergency with discomfort in left iliac fossa and perfuse bleeding per-rectum. O/E his pulse is 105/min and mild tenderness and fullness in the left iliac fossa.

- D/Diagnasis

Intestinal obstruction
Valvuelus
Paralytic ileus
Colorectal carcinoma

- Inuestigation:

Abdominal examination:

Abdominal scar
Hemical orifice

Digital Rectal examination:

CBC
LFT's
serum electralyte
Urea + creatinine + Amylase
Glucose level

Notes by: Fahad Rasool

Radialogical :

X-ray Abdomin in supine pasture

Dilated Bowel loops

Dilated loops of Ileum - Centrally located

Dilated loops of Jejunum - Presence of valv
Connivantes

Large bowel - Haustration

CT-scan Abdomin

level of obstruction

Degree of obstruction

Cause - Volvulus

Hernia

Luminal

Mural

Degree of ischemia

Free fluid + Gas

Notes by Fahad Rasool

⇒ Adhesive Intestinal Obstruction :

- 50 yr. Shopkeeper presents in the emergency with the complaints of Absolute constipation, Abdominal distension & colicky Abdominal pain. There is H/O appendectomy 02 yrs. ago. O/E His pulse is 100/min temp 98 F Abdomin is distended with exaggerated bowel sounds.

Q- 30 yr. Female presents with H/O colicky Abdominal pain with vomitting. She has 03 C-section previously O/E Abdomin is distended?

Diagnosis — Adhesive Intestinal Obstruction
Investigation
Management

Investigations

Abdominal examination : Abdominal scar
Hernial orifice

Digital rectal examination
CBC
Liver function Test
serum electralyte
Urea, creatinine, amylase
Glucose level

Notes by Fahad Rawal

Radiological :

X-ray Abdomin supine
↓
Dilated bowel loops.

CT-scan
-> level of obstruction
-> Degree of obstruction
-> cause - valvulus
Hernia
Luminal
Mural
-> Degree of ischemia
-> Free + Gas
fluids

Management :

Initial :

IV-fluids
Nasogastric aspiration
Correction of electrolyte
Correction of metabolic Dearrangements
03 days conservative Rx.

Surgery :

Open surgical adhenolysis
Laproscopic adhenalysis.

=> CA - Colon

1 -> 40 yrs old man presented with bleeding P/R with/for 05 months. He has significant weight loss. He also c/o Abdominal distension. Per-rectal examination shows palpable 3cm from anal verge?

2 -> 65 yrs old man presented in OPD complaining bleeding per-rectum for 06 months. He has also chronic constipation but no painfull defecation. ↓ weight marked.

Diagnosis - Colorectal carcinoma

D/Diagnosis

Investigation

Management

D/Diagnosis :

Colorectal carcinoma
Internal hemorroids
Crohn's Disease
Palyps.

Investigations :

Per-rectal examination
Proctoscopy
Sigmoidoscopy Flexible
Biopsy
Colonoscopy
CT- Abdomin
pelvis chest
Double - Contrast
Barium enema
TRUS

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Surgical :

- Right hemicolectomy
- left hemicalectomy
- Anterior Resection
- Hartsman's operation.
- Abdominal perineal resection.

Others :

- Chemotherapy
- Radiotherapy

TNM- Staging :

T-staging

- T_1 – Into submucosa
- T_2 – Onto Muscularis propria
- T_3 – Onto pericalic fat not breaching serosa
- T_4 – Breach serosa + directly invading another organ.

N-staging :

- N_0 – No nodes invalued
- N_1 – One or two nodes invalued
- N_2 – 03 or more nodes invalued

M-staging :

- M_0 – No metastasis
- M_1 – Metastasis

Dulce's Staging :

- Confined to bowel wall
- Through the bowel wall but not inval
  - free peritoneal or serosal suface
- Lymphnode invalvement.

→ Meckel's Diverticulum :

- A 10 yr-old boy presents in A&E with abdominal pain around umbilicus, which shifts with movement. There is history of malena. Barium study shows that outpouching near the terminal ileum.

- Diagnosis - Meckel's Diverticulum (Due to Failure of obliteration of Vitellointestinal Duct)
- Management
- Rule of 2's

Incidence 2%

Male/Female ratio 2:1

Only half of these are symptomatic under <2 y

Located at ileum - Mostly 02 feet proximal to ileocaecal junction.

Base is 02 inch in width

Contain 02 type of mucosa - Gastric
- Ileal.

Management :

* Discovered incidentally

Investigations

Technetium scan :

^{99}Tm Sodium pertechnitate scan identify - Gastric Mucosa

Contrast-Studies :

May detect diverticulum through small bowel follow.

Angiography :

Can localize the site of bleeding during acute hemorrage.

Rx : Bleeding - correct ongoing blood loss

Do endoscopy to rule out upper GI b

If meckel's is cause

↓

Segmental resection of I

Rx peptic ulcer.

Diverticulitis :

Resection

Obstruction : Relieve obstruction.

Resect the obstructed segment

End to end anstomosis

Incidental :

If suspicion of Tumor

Diverticuloectomy should be performed.

⇒ Intestinal Stomas

Q→ A middle aged man known case of familial adenomatous polyposis undergoes operation which ended up in Intestinal stoma?

- Define
- Types
- complication

① - What's Intestinal stoma :

surgically created opening of small or large intestine onto anterior abdominal wall.

② - Types :

- colostomy
- Ileastomy
- End stoma – consist of single intestinal lumen
- Loop stoma – Give access to both
  - Afferent limb
  - Efferent limb
- Permanent
- Temporary.

③ - Complication

Early
↓
Ischemia
Retraction

Late
↓
Stenosis
Prolapse
Parastomal hemiation
Obstruction of small bowel
Hemorrhage
Diversion Colitis
Dermatitis
Psychological.

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