"بسم الله الرحمن الرحيم"

(OSCE) 27.Dec.2024

Signs of:

1. Dehydration: Delay capillary refill; Oliguria, ↓ skin turgor, Dry mucus membrane لعاب + الفم من جوا + شفايف
Hypotesion.., Sunken eyes, Tachycardia, weight loss acute
2. obstruction: Vomiting or distension, ↑ bowel sounds, Pain tenderness, palpable mass or absent bowel sound (Late)
3. peritonitis: Persistant vomit small amount, fever, Tachycardia, Hypotension, Pallor abd. pain, Guarding (involuntary contraction), rigidity, Rebound Tenderness, absent bowel sound.

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Pediatric :

(CDH) mostly antenatal diagnosis

HX : male , Rs distress (Tachy + retraction) , Associated anomalie ? , Pulmonary HTN

PEx : scaphoid abd , displaced ♡ sound , bowel sound in thoracic , ↓ breathing sound bilateral. & Rt side 80%.

associated anomalies ? 1/3 of cases = Trisomy , Cardiovascular , syndrome : Pentalogy of Cantrell ⊕ CHARGE ⊕ Beckwith - Wiedemann

Types : bochdalek — morgagni (retro sternal) — central — eventration → older age - chest discomfort

Dx : 1) US at 22 week (fetus) → Hg. poly Hydamniotic + chest mass بطني الرئتين
& Lung to head ratio / O:E

2) Fetal MRI (lung volume) 3) chromosom analysis 4) X-Ray

Managment : if birth ♡ or FETO surgery "Fetoscopic endolumin tracheal"

1) Tube 2) ventilation Mech 3) NGT 4) IV access & Fluid

Vital signs O_2 sat + PH + $PaCO_2$ 50-70 mmHg. 5) HTN → Nitrix oxide + Sildenafil

Surgery : + mesh

1) stable 2) open subcostal 2) Minimal Invasive laproscopic or thoracoscopic

(EA/TEF)

Hx: male, previous child same status, a child for affected parent 4% (8%).
the mom: use of methimazole / Thalidomide / OCP / estrogen / DM / فينيل كيتونيوريا
or ~~drink~~ drink alcohol (fetal alcohol syndrome.)
Trisomy, gene mutation (MYCN, CHD7 in charge, SOX2) + VACTERL
vomit milk, not full = جوعان., choking, drooling of saliva, need for suctioning.
+ CHARGE

DX: US → ① polyhydamnoic ② pouch sign ③ absent bowel bubble
Postnatal → ① coil of NG (T2-T4) ② Rs distress ③ X-ray with contrast "better without"
Xray: coil NG + stomach gas + infiltration of lung + double sign atresia

Managment:
Stabalize + not urgent + NPO + IV fluid + ventilation + sleep on Rt side
+ ECG "other anomalies" +

Surgery: open thoracotomy / NIV → Bronchoscopy : ligation + anastomosis
+ complications (many) → GERD + barrett's مريء

< Johns hopkins hospital

(Mal Rotation)

(Intestinal Atresia)

① Duodenal .. most Common.

Hx: male, 50% premature, 50% Trisomy 21, Cardiac anomalis 30%.
85% distal to ampulla → bilious vomit + abd. distension + Scaphoid
. antenatal → polyhydramnotic + Double bubble sign (x-ray)

manag:
ECG + NPO + [illegible] + IV Fluid & electrolytes + gastric decompressio NG

Surgery:
only urgent → Volvulus + mal Rotation .. (open doudenoduodenostomy)
or Laproscopic
& Diamond-shape.

② small bowell (neonates)

Hx: polyhydramnoic + Dilated Bowel loops + echogenic bowel (US) bright
"antenatal" + bilious vomit + Distention + may Pass small of meconium
& vascular trauma.
Types: ① stenosis / 2: fibrous Cord / 3a: gap / 3b: apple peel
4: susage

Manage + Diagnosis:
X-ray (bubble appearense) + lower Contrast enema
Resuscitation + IV Fluid + TPN + compress with NG + Surgery

④ Colonic atresia. Could be mixed with mecunium ileus.

Hx: rare, mostly isolated (مش متصل), abd distention, bilious vomit, no pass mecon
neonate :

Dx: mostly Type 3 (V-gap messentry), Xray → ground glass dilated distal bowel
Contrast enema → abrupt halt at obstruction

manage:
Take biopsy rull out 2nd causes + Resescitation + primary anastomosis
+ staged surgery → colostomy + anastomosis

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(Mal Rotation)

HX: Healthy born baby, later refuse to feed, bilious vomit sudden, bleeding per Rectum, Abd distension, age (1 month — 1 year), pale in Color

Dx: US Color doppler → SMA anlt normally + SMV relation "whirl pool sign"
Gold → upper Contrast → "Coil spring" or "Corkscrew sign → mid gut Volvulus

(* note) 270° normal Counter clock // problem in rotation + Volvulus

manage:
Fluid / NPO / electrolytes — NG Compress — Antibiotics —

Surgery:
open or lap → ① Counter clock detorsion of bowel ② Ladd's Cecal band division
③ broading of messentry ④ appendectomy ⑤ small bowel on Rt & Large on Lt place it.
if ischemic → Transplant + TPN

(Anorectal malformation - imperforated Anus)

HX: male, 5% Down Syndrome, meconium or air per urethra or vagina. + Frequency of stool + Fam HX
anal exist anteriorly, rectal atresia + Fistula, anal absent, Fistula: uethra / prostatic
or even stenosis. mostly postnatal,

Dx: clinical, Cross tablet lateral Xray = gas in rectum, Contrast MRI → best in Fistula.
Role out VACTERL: MRI spine, Echo, Renal US pelvis, radiograph for bone.

manage: NG, NPO + IVF, antibiotic prophylaxis, watch (24hr), One or multi surgery
if rectum < 2cm close → posterior sagital anorectal plasty (Low types) → anoplasty
not + Fistula + High types → Colonstomy "Double barrel" + anoplasty.

Out Come: Constipation + Inconhinence + Fistula.

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NEC

(Hirshprung) HD

Hx: male, no pass meconium 48hr, bilious vomit, (Late) Constipation or overflow diarrhea, Syndromes: MEN2 - Down - Central hypoventilation.
+ ♡, UT, CNS problems + malrotation GI + Genes RET proto-oncogene
+ enterocolitis → infection fever

PEx: PR → air & stool could come out

Dx: xray → distention, lower contrast enema → Transition zoon,
Anorectal manometry → no ↓ in sphincter pressure internal reflex
Rectal biopsy, Histochemistry → absent CAT-retanin, ↑↑ Acetylcholinesterase

manage: washout (cath+NS), Colonstomy, Antibiotic,
Surgery: Swenson (all remove) // Soave (muscle kept) // Dultamel ((Pull-Through)) keep non functional

(*note) Trisomy 21 + long segment disease ↑ Risk → HD, enterocolitis, IBD

(Meconium Ileus) most common in newborn obstruction

Hx: CF → AR, no pass of meconium in 1-2 day, healthy Baby, Abd distension.
bilious vomit, discomfort, ~~megacolon~~, (Cystic fibrosis F508del → C7q31)

PEx: Doughy abdomen, Tender + mass → perforation. بنحط ميا

Dx: Soap bubble or groundglass x-ray, ~~Barium enema~~, Contrast enema

manage: water-soluble Contrast (2/3 ✓) — enterotomy irrigation + enterostomy
Complicated → ischemic resection + Stoma + anastomosis

Post: N-acetyl cystine 5-10ml → as NS washout + antibiotic + pancreatic enzyme

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(NEC . necrotizing enterocolitis)

Hx: Premature baby or Very low Birth weight , abd distention , Palpable bowel
Skin discoloration , signs → Peritonitis , bleeding per rectum

Dx: X-ray → pneumatosis intestinalis (air) , US → perforation/ abscess ..
+ air under diaphragm +

manage: resuscitation + Surgery in pneumoperitoneum → Lap / anast / stoma /
→ Intestinal failure 1/3 of cases = mortality.

(HPS)

Hx: male, age (2–8 weeks) , 1st born child, Young age mom , Formula feeding
antibiotic while pregnancy , (non-bilious) vomit projectile, dehydration ← signs

PEx: Olive sign 80% of pt palpable
→ Hypochloremic Hypo K⁺ metabolic alkalosis.

Dx: US → thickness >4mm , length ≥ 16mm
Upper contrast → Thickening + obstruction (string sign)

manage: Supportive, NPO , IV fluid (and), electrolytes

Surgery: Laprotomy , pyloromyotomy → Through muscle not mucosa. — Complication: residual + perforation

(Intussusception)

Hx: male , age (4 months – 3 years) Toddler ✓ , abd pain cramping every 30min ,
Jelly red stool , Previous healthy, Palpable mass PEx. , signs of dehydration
+ (Dance sign) → empty RIF as sausage. , Flex of knee , gastric / bile vomit

Dx: air enema (or contrast) + US → Donut sign , Pseudokidney sign / sandwich ...
(+ X-ray → air dilated bowel ↔ Central Shadow (OR) CT → (Target sign)

manage: Therapeutic + diagnostic , NPO , IV-fluid (and) , Hydrostatic reduction

laproscopic if : not successful manage – peritonitis – presence of 2nd causes.

Leading point: polyp - meckle - hemangioma - celiac disease - C. difficile.

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(Gastroschisis) → C-Section ولادة → vaginal

Hx: antenatal, mom < 21 yo, bowel lateral to umblicus, no sac, no anomalies, ileus, associate with UDT (open < 5cm)

Dx: by US at 20 week of gestation, bowel Rt to umblical floating in amnioc fluid, ~~abro~~ abnormal α-feto protein level

manage: Resuscitation + bowel wrap in warm saline sac gauze → Placed in central of defect (TPN)

Surgery: primary or staged. (must fast baby so no size change in bowel)

(Omphalocele) → Vaginal / C-S

Hx: antenatal at week 18, Deliver in 3° at term & vaginal, anomalies umbilical ring defect, in sac peritonum, bowel ± Liver, normal GI function

Dx: by US at 18 week, ↑ α-fetoprotein (AFP) (open > 10cm)
→ syndromes: pentalogy + Beck with-wiedman, Trisomy, Cardiac

manage: Resuscitation, rectal tube, wrapp in warm ~~not~~ saline soaked gauze

Surgery = primary / staged + mesh or silo reduction / paint + wait by Heney !

(Meckel diverticulum)

HX: Intestinal bleeding, obstruction, diverticulosis, cystic abd mass Internal herina or Volvulus, umblical fistula or Cucinoid → elderly Tumor.

Rule of 2: male 2:1, 2 feet from ileocecal valve, 2 inch length X 2 cm 2% of population, at age 2 yo discover, 2 heterotopic mucosa

DX: US & CT & Technetium 99 pertechnetate (meckel scan)
– leading point of intussussception

manage: inflam ⟶ Resescitate & release
bleed → Surgery

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(Biliary atresia)

HX: neonate Jaundice. Female, age > 2 week, direct bilirubenia, 85% isolated or BASM → splenic malform + malrotation, Pale stool, Dark urine hepatomegaly, anemia,

Dx: US → Triangular sign, Hepato biliary scintigraphy.

Surgery: Liver Transplant, Proto-enterostomy "Kussi" best before age of 2month

Success: Pigmented stool seen in 2-3 weeks.

(Inguinal hernia / Hydrocele)

~~FH~~: Premature ~~5%~~ 30%, Male in fullterm, Rt, +ve fam Hx (most common)

HX: numbness → ilioinguinal nerve injury "inner upper thigh", Groin Swelling, asymptomatic observe by parents.

DX: clinical, Xray if swelling, Transillumination → Hydrocele

manage: Hydrocele → must resolve in 1st & 2nd year, if not → non communicating → High ligation + drainage.

Pain → surgery.

Hernia → Patent Process Vaginalis Laprscopic or open

explore if: Female, Lt side hernia, premature - young age.

(note) Incarcerated hernia → Reducable only, Strangulation → Fear of ischemic & cut blood

(Undescended Testes) UDT - Cryptorchidism.

HX: 40% premature / VLBW, not palpable empty in scrotum, Hx of trauma

Check ectopic area (inguinal + pubic), Inspect scrotum & phallus "androgen"

manage: if exist it descend in 1st year, if not → hormonal test (androgen testo)

Unilater not palpable → lap → orchiopexy / staged / -ectomy

Unilateral palpable → orchiopexy

Bilateral nonpalpable → Lap & explore

↓ Risk of malignancy & infirtality & psychology & Torsion.

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anti-mullarien (sertoli abnominal phase) - androgen (leidge, inguinio scrotal phase)

(Acute scrotum)

Hx: acute pain   Hx of trauma

age → Testicular Torsion in (<3 yo neonate) & adolescent (14-25) // prepuberty → Torsion of appendix

Testicular Torsion → golden 6 hr, unilateral & thigh & abd pain, N & V,

* intermittent pain → spontaneous detorsion, types (extravaginal <3 months / intra = bell clapper

Swelling, erythema, absent cremastic reflex, anterior epididyms

Testicular Appendages → age (7-10), unilateral, nausea, Palpable,

Locally Tender (blue dot sign),

Epididymitis / orchitis → slow onset Days, swelling & pain,

Idopathic scrotal edema → winter / autum, boys (6-9), ± pain, pruritis, bilateral

Henoch-Schonlein purpura → Cord + Scrotum pain, purpura, Joint pain, hematuria

♂ <7yo c̄ systemic vasculitis → US normal blood flow to testies.

manage:

TT → US can be done, GA → detorsion, warm saline, fixation + contralateral

Appendages → Self limited or NSAID, warm compress, explore, (no) fixation

orchitis → +ve urinanalysis, antibiotic, viral, STDs urethral swab, Self limited

ISE → antihistamine, Corticosteroid, antibiotic → abscess, insect bite??

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(... aspiration)

(esophageal)

HX: Crico pharyngeus sling, asymptomatic, witness?, Dysphagia, wheezing, Vomiting, PEX: n 'sc → oropharyngeal abrasion / cepitus / perotinits

manage: X ray (AP+lateral), Scopy, Contrast, stuck? → endoscopy or foley ballon (Fluro) optical grasper // Pass lower esoph.? → get stomach → pass GIT.

(Gastrointestinal)

HX: abd pain, N & V, fever, Perionitis

manage: no need for prokinetic or cath, pass allone (4-6week) / endoscopy, Lap.

* battary double contour → x ray / cylinder shape → pressure necrosis / Leakage of alkali
  ↳ perforation / fistula / stricture → if in esophegus → immediate remove

* magnet multi or second metalic → Fistula / Perforation less → Volvulus / obstruction

* sharpe FB → risk of Perforation 30%

* Bezor (lacto, tricho, phyto) → HX: N+V, Weight loss, abd. dest, DX: Xray, contrast
  Rapunzel syndrome (tricho) — ileo-cecal valve (phyto) → Trichotillomania + gastrotomy / Lap

(Airway)

1) young dangerous → Short airway, difficult larynx intube, subglottic → narrowest

2) Rt main bronchus "larger R"

3) ptso playing / rush / choking / Boys > Girls / asymptomatic signs of allergies after a while Rs distress, stridor, wheezing, Dysphonia, hoarsness / pneumonia

Manage - DX: X-ray AP+ lateral, expiratory phase → Hyper inflation / Flat diaphragm → Bronchoscopy (Flexible / Rigid) → Fogarty Catheter
wide intercostal space, Straight ribs or FB → "air trapping"

(Neuroblastoma) Rosette

HX: most common age (1-4 yo) 50%, male, palpable abd. mass, sick lethargic child, Bone pain, weight loss, anemia, fever, Racoon eyes, Horner syndrome, Cerebellar ataxia & Trunk opsomycolnus, Dancing eye, paraplegia, HTN → Catecholamin/mass effect, Diarrhea, Skin nodule, Hepatomegaly, ~~Gt~~ (Active Tumor) → Systemic illness

Investigation: ① ↑↑ Vanillymandelic acid VMA + Homo Vanillic Acid → urine
② ↑ ferritin ③ ↑ LDH ④ ↑ ~~en~~ Neuron specific enolase (NSE)
⑤ Xray → calcification ⑥ Diagnostic (CT)-MRI ⑦ radio-isotope MIBG scan
⑧ Biopsy → confirm dx

Staging: Bone image, CT/MRI scan,

Diagnosis: Labs → urine catecholamin ↑↑. or ~~&~~ (Biopsy → Histo) & mets

mets: LN, BM, skin, Liver, bone

Clasification: Shimada (4) - Cytogenic & prognostic factor "MYCN poor prognosis"
- International NB staging system (1-4 stage + stage 4s)

~~manage: low risk → surgery, intermediate → neo+surgery, High → neo + surgery~~

manage: - Low risk / absence IDRF → Surgery ~~adjuant + radio~~
↳ stage 1 / stage 2 <1yo / stage 4s أيضاً
- Intermediate / apical thoracic tumor / intraspinal → neo + Surgery ± radio
- High risk → Sandwish (neo + surgery + adjuvant) ± radio

new Treatment: I^{131} labeled MIBG

(neuroblastoma) — Stage 4S & Primary tumor & mets, infant < 1yo, +ve BM involvment
(Hepatomegally → RS failure) → give low radio/~~chemo~~ Cyclophosphamide
S.C nodules → Blueberry muffin spot, Spontanuous regression

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(wilm's-nephroblastoma)

HX: age = 1-4, Female, uni bilateral, no Systemic illness, Hematuria, sporadic 90%.
abd pain, asymptomatic abd mass, anemia, UTIs, Varicocele (Rt), Rupture
(WAGR-syndrome, BWS syndrom) → Aniridia

Investigation: Labs: Urine analysis, Liver met ?, B-FGF, Renin, erythropoietin.
→ US, CT scan or MRI (Diagnostic) → extention to veins + cava, Echo Rt atrium
Arteriography, DMSA "nuclear" bilateral assess KF.

manage: neo + surgery "down staging" + adjuvant
(Partial or nephrectomy)

(Pediatric of urology)

(uretropelvic obstruction) * Hydronephrosis (HN)

HX: male, lt kidney, bilateral 40%, antenatal US → Hydronephrosis, mostly asymptomatic
abdominal/Flank pain, Flank mass, Recurrent UTIs, Hematuria,
↳ not real (only if reflex)

Invest: US → kidney anatomy, renal radioisotope (not KFT) MAG3 → abn: if below 40% K. function
MCUG → distal obstruction or reflex → Pelvic drainage = $T_{1/2}$ > 20 min = obstruct

Tx: follow up, surgery < 50% pt, endourological pyeloplasty.
↳ HX & US & MAG-3

(Vesicoureteric-Reflux) VUR *

HX: female, 3yo, recurrent UTIs, HTN, renal dysfunction, (no distention)

Labs: normal KFT or ↓ in severe case, ↑ Creatinine & urea. UTIs only in grade 4+5

Invest: US → HN, DMSA nuclear test → renal scar, MCUG → degree of reflex
↳ less perfusion to scar areas. ↳ Direct Isotope Cystogram follow up.

Tx: low grades (1-3) → ① resolve spont. ② Antibiotic prophylax ③ ± bulking agent inject
Surgery: 2ndary causes, scars, fail of submucosal injection, single kidney, HTN
↳ Re-implantation, + antibiotics → only preserve KF not remove scars

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احليل تحتي / ظهور مالاتي

(Hypnosis) notes not OSCE :

① abnormal urethral meatus ② foreskin doesn't cover glans ③ glan defect

④ underdevelop corpus spongiosum ⑤ phalic Torsion ⑥ phallic curvature

Causes:

Endocrine (↑ estrogen, ↓ Testosterone or R of cnu)

Surgery. 1 + 2 grade ✓ (urethra level middle penile)

↳ bellow age 18 month :