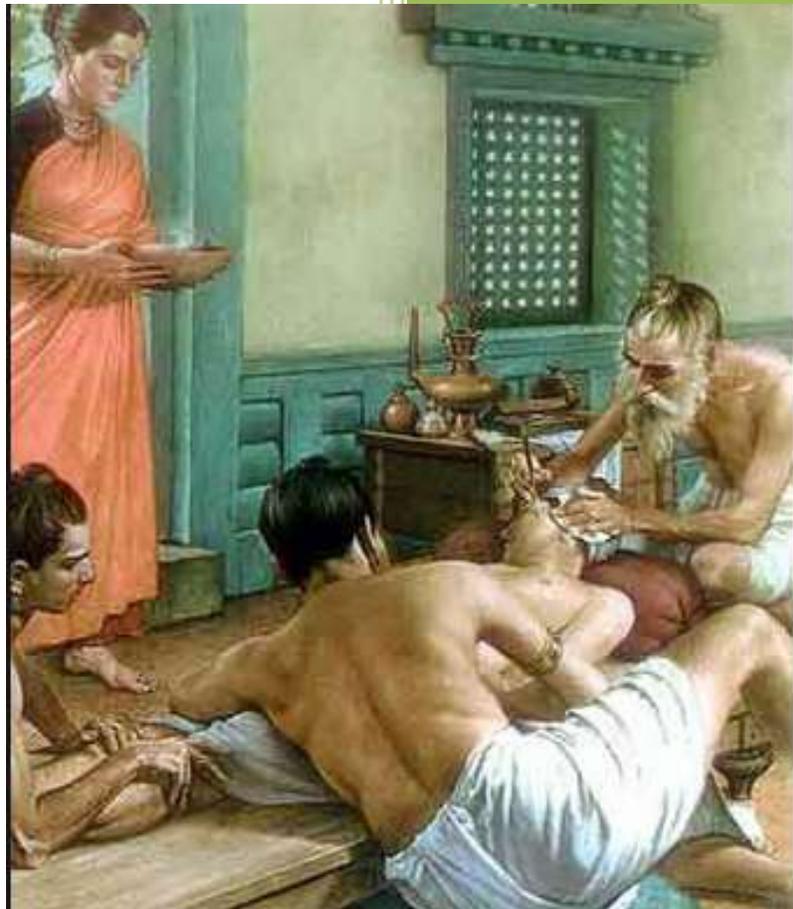


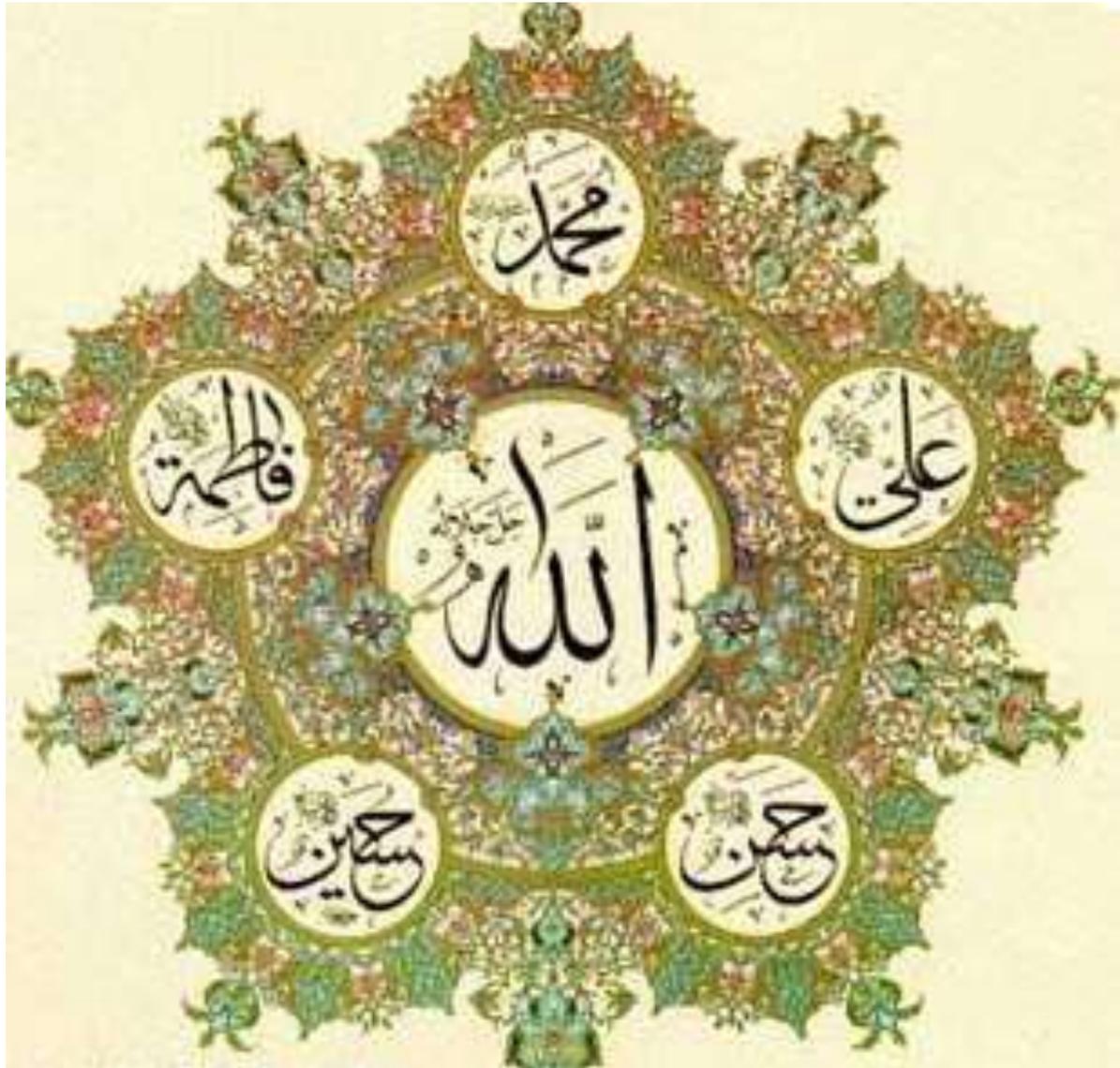
NUGGETS

SYSTEMIC SURGERY



By: Shaheryar Ali Jafri

DEDICATED TO.....



GIT & ABDOMEN NUGGETS

- 1) Esophageal perforation most often caused b/c of INSTRUMENTATION (removal of foreign body)..... Surgical emphysema of neck n upper chest is pathognomonic..... Dx: do X-RAY, gastrograffin contrast study..... if -ve ...do dilute barium study/CT scan.....
- 2) For perforation of CERVICAL ESOPHAGUS = manage conservatively...if abscess=drain by penrose drain..... but For ABDOMINAL ESOPHAGUS = ALWAYS DO SURGERY..... other indications of surgery: large septic load, boerheave, breach in pleura
For thoracic esophagus = conservative but if above 4 = surgery
- 3) Regarding surgical options for esophageal perforation:
 - i) 4-6 hours = Do primary repair (always stitch the MUCOSA)
 - ii) >12 hours = edema develops = so; PROXIMAL END KO BAHAR LE AAO and DISTAL KO CLOSE KRNA HA..... & for feeding = Feeding jejunostomy..... kuch din k baad colon/jejunum ka graft laga dena hai us jaga pe..
jis proximal end ko bahar laya ha waha se drain krna ha by placing T-TUBE + local drains placement
- 4) Early endoscopy is mandatory for corrosive esophageal injury and regular follow up ENDOSCOPIES are advised to assess the development of stricture.... Do not do N/G aspiration in acute corrosive injury... Feeding jejunostomy can be done
- 5) Esophageal diverticula may be Traction or Pulsion (false)..... Zenker diverticula is a pulsion diverticula which is found Above the upper esophageal sphincter in Killian dehiscence (b/w thyropharyngeas and cricopharyngus)... patient presents with Slowly progressive dysphagia with regurgitation of undigested food b/w meals along with foul smelling breath (Halitosis).. leads to lung abscess and tracheal compression..... Diagnosed by Barium swallow (endoscopy is contra-indicated)..... Rx: Myotomy with Excision of sac.
 - (Failure of cricopharyngeus to relax during swallow... so pressure increases and divertula forms)
- 6) A young patient with dysphagia for both solid and liquid, regurgitation..... ACHALASIA..... Dx: i) C-xray: wide mediastinum..... ii) Barium: Bird beak appearance..... iii) Manometry (gold std) = Increased LES tone with decreased peristalsis.....Rx: Pneumatic dilatation.....If fails = Heller's Dor Myotomy.
Complications of Achalasia = Nocturna cough, lung abscess.
- 7) Barret esophagus is intestinal metaplasia of lower esophagus..... increased risk for adenocarcinoma.....give PPI and follow up using endoscopy
 - i) If just metaplasia = endoscopy every 2-3 years
 - ii) If low grade dysplasia = endoscopy 6-12 months
 - iii) If high grade dysplasia = ablation with endoscopy; photodynamic; argon laser; plasma coagulation; esophagectomy
- 8) Complications of peptic ulcer surgery includes : RECURRENCE; DUMPING SYNDROME; ALKALI REFLUX/BILE REFLUX; POST-VAGOTOMY DIARRHEA; GASTRIC CA; GALLSTONES; NUTRITIONAL DEFICIENCY
- 9) Dumping syndrome : Early dumping is due to hypovolemia whereas late dumping is due to hypoglycemia..... Dumping will improve with time
- 10) If reflux gastritis happens... treat by cholestyramine and metoclopramide,,.....if persists..... do

ROUX-EN-Y RECONSTRUCTION

- 11) A patient on chronic NSAID/peptic ulcer; smoker with sudden onset of pain in abdomen with distention = PERFORATED PEPTIC ULCER = X-ray = Gas under diaphragm..... Rx: i) Resuscitation ii) Laprotomy with upper midline incision iii) Wash the peritoneal cavity with Normal saline iv) Localize the perforation..... a) If duodenal = Graham omentopexy b) If gastric = simple wedge resection and biopsy/ multiple biopsies and Graham patch
- 12) Hepatic adenoma is associated with OCP; found in young women; there are no Kupffer cells in it; it can cause intra-peritoneal bleeding; it can predispose malignancy so do biopsy and do surgical resection
- 13) Focal nodular hyperplasia is associated with trauma; gives central stellate scars on liver with radiating septa producing mass effect; it HAS KUPFFER CELLS so detected by SULPHUR COLLOID NUCLEAR SCAN; not premalignant so no treatment required.
- 14) Dilated intrahepatic ducts b/c of congenital hepatic fibrosis = CAROLI DISEASE = may lead to bile stasis and stone formation in the liver..... if infected: treat by antibiotics..... drain bile.....segment of liver can be removed or Liver transplantation is last resort
- 15) Splenunculi are accessory spleens in 10-30% ppl mostly found at splenic hilum but may be found in the ligaments of spleen.....So in patients undergoing splenectomy esp for hematologic disease..... always look for Splenunculi and resect them also b/c they can be site for recurrence
- 16) Splenic artery aneurysm more common in females; in pregnancy; if it is symptomatic or >2cm.....treat by Embolization/ Splenectomy
- 17) Splenic infarction caused by myeloproliferative disease, sickle cell, portal vein thrombosis..... does not always need surgery but if it gets infected/abscess formation... do splenectomy
- 18) In ITP= splenectomy is done if i) Failure to steroid therapy ii) 2 relapses after steroid iii) Persistent ITP.....before surgery => if platelet count is low= transfuse platelets.....stop giving platelets once splenic artery is ligated b/c rebound thrombocytosis is happening now...
- 19) 2 weeks before splenectomy = give Pneumovax for strep.pneumoniae,; meningococcal vaccine; and also Hib if patient not got in childhood..... if splenectomy has been performed in emergency i.e for trauma = give these vaccines as soon after surgery before discharge.
- 20) In HEREDITARY SPHEROCYTOSIS= splenectomy is done after 6 years of age.....before splenectomy = do ultrasound to rule out gallstones
- 21) Choledochal cyst is dilation of extra/intrahepatic biliary system..... i: fusiform ii) CBD diverticulum iii) pancreatic cyst iv) Intra+extra v) Only intra (Caroli disease).....dx: do USG best is MRCP..... treat with excision of cyst and Roux-en-Y hepaticojejunostomy
Choledochal cyst : predispose to CHOLANGIOCARCINOMA
- 22) Perforation and abscess in diverticulitis are strong indications of surgery..... if Abscess = 1st drain the abscess percutaneously then after some time = do Resection of segment with end-end anastomosis.....
if perforation = Do Hartmann procedure / or / Resection and exteriorization
- 23) Investigation of choice for acute diverticulitis = CT scan..... never do barium/colonoscopy in case of acute diverticulitis b/c of risk of perforation

24) Colonic diverticula are acquired disease and the most common site is SIGMOID.... They never involve Rectum b/c its muscle layer is complete and it does not split into tinea.....They may lead to Fistula formation (eg: VESICO-COLIC most common)

In diverticulosis... barium and colonoscopy can be done.... barium shows SAW TOOTH APPEARANCE

25) In case of Amebic liver abscess = give trial of Metronidazole 1st ; but in case of Pyogenic liver abscess = USG guided p/c aspiration is effective in 80-90%.; so do it in addition to antibiotics.... but remember to treat the underlying cause as well.

26) Femoral hernia is the 3rd most common hernia; more common in females; has high incidence of strangulation; BELOW AND LATERAL TO PUBIC TUBERCLE; more common on right side; although they have more chances of strangulation but they are mostly asymptomatic and unnoticed as compared to inguinal hernia; differentiate it from Inguinal hernia, saphena varix, femoral lymph node; lipoma, femoral aneurysm and psoas abscess.....Treat by i) Lockwood (infra-inguinal) ii) Lothessian (trans-inguinal) iii) McEverdy (high inguinal).....Remember: femoral hernia has got more chance of strangulation = so always repair it

Note: Both indirect and femoral hernia are mostly found on right side

27) Inguinal hernia is mostly found in males; Indirect in young and direct in elderly; Treatment principle include i) Dissection of sac ii) Ligation of sac iii) Reduction of sac iv) Mesh placement.....; if patient refuses surgery = Truss can be used.

28) Umbilical hernia=conical in shape; in children ; rarely strangulate; mostly resolve spontaneously; wait for 4 years---> if not resolve--->do herniorraphy

29) Gastrinomas (ZES) are mostly malignant.... found in gastrinoma triangle..... associated with MEN-1.....labs reveal increased fasting gastrin >1000pg/ml... confrmd by SECRETIN STIMULATION in which after secretin >200pg/ml rise in gastrin takes place

30) After doing left hemicolectomy..... colostomy should be done if gut is not prepared (e.g: if emergency intestinal obstruction b/c of left colon ca= do resection and colostomy b/c gut was not prepared in emergency).....but after doing right hemicolectomy..... anastomosis can be effectively done...(no need of colostomy/ileostomy)

31) Sudden onset of abdominal pain with tyre like feeling; x-ray showing OMEGA SIGN= SIGMOID VOLVULUS = Do rigid sigmoidoscopy and try to reduce it.....if fails.... do laprotomy.... if area is dead = resect and do double barral colostomy.....if viable... do sigmoid colectomy and hartman procedure.

32) Most common clinical presentation of Merkel diverticulum is PAINLESS BLEEDING P/R..... others: Diverticulitis, intestinal obstruction, intussusception, peptic ulcer, volvulus, Hernia of litte.....Investigation of choice=Tc-99 scan (detects gastric mucosa/bleeding diverticula), Angiography (detects vitellointestinal artery)Rx: Segmental resection; Merkel diverculectomy...
Merkel diverticulum is the most common congenital abnormality of GIT..... a silent merkel diverticulum if found incidentally on any operation should be ONLY RESECTED IF IT IS THICK WALLED or NARROW MOUTH. Merkel diverticula has its own blood supply

33) Cholangiocarcinoma = Adenoca of intra/extrahepatic biliary apparatus.....most common risk factors are PSC & CHOLEDOCAL CYST.....Dx: ERCP, Endoscopic USG, PTC (esp useful for tumor at confluence).....Do resection, bypass, bilioenteric anastomosis, stenting

34) Most common mesenteric cyst is Chylolymphatic; it is thin wall; has independent blood supply; so treat by ENUCLEATION

35) Other mesenteric cyst is ENTEROGENOUS; it is thick wall; has common blood supply with intestine; so ALWAYS RESECT INTESTINE WITH IT

36) In Achalasia; the constricted portion has normal ganglion cells while the dilated portion has absent/few ganglion cells

37) In Hirschsprung disease: M>F; the constricted portion is ABSENT in ganglion cells while dilated portion is NORMAL.....NERVE TRUNKS UNDERGO HYPERTROPHY.....most common site: RECTUM..... Risk factor: Down/familial
Neonate: Delayed passage of meconium; Abdominal distention; bilious vomiting
Child: Chronic constipation; abdominal distention; failure to thrive
Dx: full thickness rectal biopsy (best), Barium enema shows coning; Anorectal manometry
Tx: i) Do colostomy (imp 1st step)..... Correct nutritional status..... When child is over 10kg.....

ii) Swenson (pull through) iii) Soave (resection and anastomosis with sleeve mucosectomy of anal canal and rectum) in old iv) Duhamel v) Transanal
vi) Myomectomy

38) Angiodysplasia: AV malformation of Ascending colon; >50 years.....most common site: cecum....; associated with aortic stenosis and v-wb disease..... Dx: Angiography, Colonoscopy, Tc-99 RBC scan Rx: excision/ colectomy

39) Most common site of small bowel diverticula = JEJNUM..... Duodenal diverticula are on 2nd and 3rd part and on MESENTERIC BORDER.... While Meckel diverticulum is on ANTI-MESENTERIC BORDER..

40) Colonic diverticula are acquired disease and the most common site is SIGMOID.... They never involve Rectum b/c its muscle layer is complete and it does not split into tenia.....They may lead to Fistula formation (eg: VESICO-COLIC most common)
In diverticulosis... barium and colonoscopy can be done.... barium shows SAW TOOTH APPEARANCE

41) Investigation of choice for acute diverticulitis = CT scan..... never do barium/colonoscopy in case of acute diverticulitis b/c of risk of perforation...

For uncomplicated diverticulitis: bed rest, antibiotics, analgesics and barium enema after acute phase subsides

Perforation and abscess in diverticulitis are strong indications of surgery.....

- if Abscess = 1st drain the abscess percutaneously then after some time = do Resection of segment with end-end anastomosis.....

- if perforation = Do Hartman procedure / or / Resection and exteriorization

42) Ulcerative colitis : Less common in SMOKERS; presents with bloody diarrhea with mucus; Loss of haustrations on barium enema, pseudopolyps..... Most common site involved= RECTUM (40%)

.....may lead to TOXIC MEGACOLON indicated by colon diameter on X-RAY >6cm....

Do surgery if: i) Dysplasia ii) Toxic megacolon iii) Steroid dependant iv) Extra-intestinal v) Severe hemorrhage/stenosis vi) Fulminant not medical responsive vii) Fever, tachycardia, hypoalbuminemia, >6 stools/day viii) Chronic disease with anemia, tenesmus, urgency.....

Surgical options: i) Total proctocolectomy + end-ileostomy (for toxic/ in old)

ii) Restorative proctocolectomy + ileo-anal pouch (park),.....preferred elective surg

iii) Rectal and anal dissection

iv) Colectomy with ileo-anal anastomosis

v) Ileostomy with a continent intra-abdominal pouch (Kock's)

Risk of MALIGNANT TRANSFORMATION increases in U.C if: i) Pancolitis ii) Disease starting in childhood iii) Long duration of diseaseoverall risk is 3.5%..... 2% at 10 years;

8% at 20 years ; 18% at 30 years.....as after 10 years 2% chance is there = so do colonoscopy every 10 years and if signs of dysplasia found = do surgery

Role of Colonoscopy in U.C: i) To see proximal extent of disease ii) To diff it from Crohn iii)

To see response to therapy iv) To see for malignant change..... NEVER DO

COLONOSCOPY IN TOXIC MEGACOLON

43) Palpable mass in Right iliac fossa: i) Crohn disease ii) Ileocecal TB iii) Ameboma iv)

Carcinoma of cecum v) Appendicular mass (Peri-appendicular Phlegmon) vi) Actinomycosis of cecum

44) Grid-iron incision is given for appendectomy if the diagnosis of appendicitis is certain;

ILEOHYPOGASTRIC NERVE is vulnerable to damage and so RIGHT INDIRECT INGUINAL

HERNIA is a complication of this.. (skin/sub/fascia/ext oblique = cut in line of incision) (internal ob/trans = splitted)

45) Rutherford-Morrison incision is given for para/retrocecal and fixed appendix (all layers are cut in line of incision)

46) Lanz incision: transverse skin crease 2cm below umbilicus

47) Lower midline incision is used when diagnosis is in DOUBT

48) Ileoinguinal nerve is damaged in hernia repair = leads to anesthesia on root of penis

49) Acute appendicitis: Pointing sign; Rovsing sign; Psoas sign; Obturator sign

50) Rovsing: palpation of left iliac fossa = pain in right iliac fossa b/c of displacement of gas

51) Psoas: Hip flexion relieves pain = +ve in Retrocecal appendix

52) Obturator: Hip flexion +internal rotation = pain in hypogastrium.... +ve in Pelvic appendix

53) Most common location of appendix = RETROCECAL.... Then Pelvic

54) In post-ileal position of appendix= no typical symptoms of acute appendicitis = so missed appendix...diarrhea is there

55) Most common tumor of appendix = Carcinoid...most common location= distal part of appendix.....Rx: If <2cm = Appendectomy.....If >2cm = Right hemicolectomy.....
Carcinoid tumors of appendix rarely metastasize

56) Adenocarcinoma of appendix = Rx by Right hemicolectomy

57) For Peri-appendicular phlegmon OSCHNER-SHERREN REGIMEN is used.

SHAHRIYAR

ORTHO NUGGETS

1) Newborn with uneven gluteal folds; limitation in abduction; limp; positive barlow and ortolani est = DDH= more common in females; Do **ultrasound** and xray = Treat with Flexion+Abduction splinting with Pavlick harness.... after 1 year = open reduction with bony realignment by spica cast.

Risk factors: family, breech, spina bifida

2) >2 years child with Limp and pain in groin/knee/thigh; abnormal gait; = Legg-Perthes disease = Do AP & lateral x-ray for diagnosis=shows small and dense femur head; (LPD is avascular necrosis of epiphysis of femur)

3) Adolescent with Limp and pain in groin/knee/thigh; legs showing external rotation=Slipped capital femoral epiphysis (dislocation b/w epiphysis and metaphysis) = do x-ray and do immediate emergency repair

4) young child after respiratory tract infection ; decreased leg movements; painful leg and flexed, abducted and externally rotated = Septic arthritis

5) Fracture where one side of bone is bent and other side fractured = Greenstick fracture.....Cortex is partially broken.

6) Abducted arm; prominent acromion; externally rotated (just like shaking hand position); after injury to shoulder; = ANTERIOR DISLOCATION OF SHOULDER= do lateral and AP XRAY= Treat after ATLS and proper analgesia : do CLOSED REDUCTION by i) Kocher method of TEAR ii) Hanging arm/gravitational method iii) Hippocratic method.....

Complications: i) Nerve damage: Axillary, brachial plexus ii) Muscle injury: Supra-spinatus iii) Recurrent dislocation iv) Bone damage: Compression fracture of humerus v) Cartilage injury: Injury to glenoid labrum (bankart lesion)

7) Adducted arm; internally rotated after attack of EPILEPSY = POSTERIOR DISLOCATION OF SHOULDER

8) Humeral shaft = radial nerve damage = 2-3 week conservative with splint=

Immediate surgery = if brachial artery injured

For radial nerve: 1st manage conservatively; but if fracture heals but nerve not = Use nerve graft

8) Young child fall on outstretched hand = SUPRACONDYLAR FRACTURE= 97% EXTENSION; 3% FLEXION..... type 3= complete displacement = Do closed reduction..... but if fails/vascular injury = ORIF (open reduction and int.fixation) by K-wires.....

Complications:

A) EARLY : Nerve(anterior interosseous, median, radial, ulnar); Arterial (Brachial artery; Volkman ischemic contracture), compartment syndrome, soft tissue injury, wound infection, hemarthrosis.....

B) DELAYED: Non-union, mal-union, delayed union, joint atrophy, Sudehk atrophy, myositis ossificans

9) Malunion in case of SUPRACONDYLAR FRACTURE leads to CUBITUS VARUS (gun-stock deformity)

10) Anterior interosseous nerve is most common nerve injured in supracondylar fracture

11) Volkman ischemic contracture is PERMANENT FLEXION CONTRACTURE of hand and wrist leading to claw hand b/c of compromise of BRACHIAL ARTERY leading to muscle fibrosis

12) Old aged; osteoporotic women fall on outstretched hand = Dinner fork deformity = COLLE'S FRACTURE= extra-articular fracture of lower part of radius within 2.5cm.....Do X-ray ap and lateral.....after ATLS and analgesia.....

A) NON-OPERATIVE: volar forearm splint temporarily, close reduction--->apply cast....> place arm in palmar flexion and ulnar deviation

B) OPERATIVE: if above fails (internal fixation)

C) PER-CUTANEOUS wires may also be placed

13) old age and fall on flexed hand = smith fracture

14) Young age ; fall on outstretched hand..... wrist pain and tenderness over ANATOMICAL SNUFFBOX = SCAPHOID FRACTURE.....do X-RAY : XRAY will be absolutely normal b/c the fracture is obvious after 2-3 weeks.....Rx.....i) Thumb spica cast....ii) Repeat x-ray after 3 weeks..... if un-displaced = apply plaster; if displaced = ORIF.....Complications: i) High rate of NON-UNION ii) AVASCULAR NECROSIS of proximal pole

15) X-RAY does not show any finding in SCAPHOID FRACTURE so repeat should be done after 3 weeks.....(v.imp)

16) PROXIMAL ULNA FRACTURE with DISLOCATION OF RADIUS = Monteggia fracture

17) FRACTURE OF RADIUS with DISLOCATION OF ULNA = Gellazi fracture

18) Both Monteggia and Gellazi fracture need ORIF

19) Intracapsular fracture of Femoral neck leads to ischemia and avascular necrosis of femoral head..... If it is Undisplaced: INTERNAL FIXATION+DYNAMIC HIP SCREW..... if Displaced: ARTIFICIAL HEAD/THR by prosthesis..... but do DHR in young pts..... old patients if immobilized are increased risk of DVT SO GIVE POST-OP anticoagulation as well

20) Smith Peterson nail is used for fixation of fracture of neck of femur

21) Fracture of femoral shaft:

- i) Infant = Use **Galow** traction (imp mcq)
- ii) Child = balanced traction
- iii) Adult= Intramedullary nail fixation

22) Femoral shaft fracture leads to extensive blood loss : so RESUCITATION is the key element in management

23) Flexion and rapid rotation e.g during kicking football; normal x-ray; Click sound in knee when knee is extended = Medial meniscus tear....DO MRI..... ARTHROSCOPIC REPAIR/ Menisectomy

24) Football injury; severe knee pain; pain on MEDIAL aspect; ABDUCTION more than normal (valgus stress test) = **INJURY TO MEDIAL COLLATERAL LIGAMENT**

25) Football injury; severe knee pain; pain on LATERAL aspect; ADDUCTION more than normal (varus stress test) = INJURY TO LATERAL COLLATERAL LIGAMENT..... use **HINGED CAST** for both these ligament injuries

26) Football injury; knee pain and swelling; on knee flexion leg at 90 o is pulled anteriorly (Anterior drawer sign)..... and also on fixation of knee at 20 o pulls anteriorly (Lachman test) = ANTERIOR CRUCIATE LIGAMENT TEAR..... do MRI.... Immobilize the patient/ arthroscopic reconstruction

27) For bone tumors.....from epiphysis; metaphysis; diaphysis (GOE)

- i) Epiphysis = Giant cell tumor : soap bubble appearance on x-ray... do surgery
- ii) Metaphysis = Osteosarcoma: sun-burst/ codman triangle on xray... surgery; chemo; radio
- iii) Diaphysis = Ewing sarcoma: Onion peel appearance on xray... chemo; radio; surgery

28) Pelvis fracture: severe bleeding is main problem (1500-2000)..... Ischial tuberosity is not fractured

Most are undisplaced.

Separation of pubic symphysis = open book fracture

UROGENITAL NUGGETS....

- 1) Kidney fusion at lower poles in front of L4 = Horseshoe kidney increased risk of infection and stone formation
- 2) Intermittent and moderate hematuria is a feature of APKD: 75% have hypertension, USG inv of choice; IVU shows stretched calyces; Rx by Roving operation, low protein diet, Renal transplant
- 3) Cystic dilation of intra-mural portion of ureter is called URETEROCELE and it gives "ADDER HEAD" DEFORMITY on urography... patients are increased risk for stone formation... Treat by endoscopic diathermy
- 4) The most common cause of ureteric injury is IATROGENIC (hysterectomy & gut surgery)..... and the best way to prevent this is to place PRE-OPERATIVE STENT in the ureter to enable better palpation of ureter during surgery..... if it gets injured: i) either do end to end anastomosis..... if injury is large so that tension will happen on ureter if anastomosed then u can do ii) Mobilize the kidney iii) Take flap from bladder (Boari flap) iv) Flap from appendix v) Insert ureter into opposite ureter vi) Ureterosigmoidostomy
- 5) Pelviureteric junction obstruction (PUJ) leads to unilateral hydronehprosis..... treatment is PYELOPLASTYS
- 6) Kidney stones: (CPU)..... 90% kidney stones are RADIO-opaque
 - i) Calcium oxalate: most common; irregular with sharp projections and give rise to hematuria
 - ii) Phosphate (staghorn/struvite).....due to proteus or staph.....(in alkaline urine)
 - iii) Uric acid stones are RADIOLUCENT.....confirmed by CT
 - iv) Cystine stones are resistant to ECSWL b/c they are hard (imp.mcq)
- 7) Stone <5mm passes spontaneously... so manage it conservatively
- 8) If there are bilateral stones.....the better functioning kidney should be treated first.....
- 9) ECSWL is indicated for kidney stones <2cm and for ureteric stones <1cm
C.I: Pregnancy, uncontrolled coagulopathy, uncontrolled hypertension, UTI , Urinary tract obstruction
- 10) Ureteric stones produces pain but if it completely obstructs the ureter... PAIN STOPS..... the best treatment of ureteric stones >1cm is URETEROSCOPIC STONE EXTRACTION and it is superior to DORMIA BASKET.
- 11) Stones which are formed in kidney ; if they pass and go to bladder they are called PRIMARY BLADDER STONES... whereas SECONDARY BLADDER STONES are those which form in bladder b/c of BOO, infection or foreign body.... bladder stones are treated by LITHOLAPAXY..
- 12) Urethral stricture, contracted bladder and large stones are contra-indications of LITHOLAPAXY..... so here u can do i) PERCUTANEOUS SUPRAPUBIC LITHOLAPAXY ii) ECSWL
- 13) PYONEPHROSIS occurs b/c of i) Acute pyelonephritis ii) Renal stone iii) Pre-existing hydronephrosis....it should be treated aggrasively b/c sepsis can take place.... i) Do NEPHRECTOMY if other kidney is normal..... ii) PERCUTANEOUS NEPHROSTOMY if patient is too sick for surgery..... iii) If pus is thick=OPEN NEPHROSTOMY

- 14) Flank pain; Fever; Pus cells in urine = Acute pyelonephritis
- 15) Flank pain; fever; flank mass; pus cells in urine; = Pyonephrosis
- 16) Flank pain; fever; flank mass; 1st no pus cells but later pus cells in urine = Renal carbuncle (abscess)..... it is caused by hematogenous spread and CT is investigation of choice for it....Percutaneous drainage
- 17) Flank pain; fever; flank mass; NO pus cells in urine = PERINEPHRIC ABSCESS... Ultrasound differentiates it from RENAL ABSCESS but investigation of choice is CT.....Treat: Percutaneous Aspiration with wide bore needle
- 18) TB of KIDNEY AND BLADDER = pain relieved by micturation; sometimes painless hematuria.....sterile pyuria (no organisms but pus cells are in urine)..... On cystoscopy u will find: i) Linear ulcers ii) Hunner ulcer iii) Golf hole appearance of ureteric orifice iv) Timble bladder..... for kidney TB... give ATT and after that do nephrectomy (if kidney function lost)..... if bladder is contracted (timble) = do Augmentation cystoplasty., instill dimethylsulphoxide
- 19) TB of epididymitis and testis is very resistant to ATT..... so do surgery.
- 20) For RCC = in early stage do RADICAL NEPHRECTOMY..... use TRANS-PERITONEAL APPROACH : Do not mobilize the kidney until RENAL ARTERY AND VEIN PEDICLE IS TIED... also PALPATE RENAL VEIN for any deposit.
- 21) Most effective treatment for SUPERFICIAL BLADDER CA = INTRAVESICAL CHEMOTHERAPY (BCG)
- 22) Blow on distended bladder = Intraperitoneal rupture of bladder
- 23) Pelvic fracture = extraperitoneal rupture
- 24) Abdominopelvic injury; urinary retention; scrotal hematoma; blood at tip of penis = Urethral injury.....Do ascending urethrogram + suprapubic cystostomy
- 25) Abdominopelvic injury; no urinary retention; hematuria on folley.....may be KIDNEY or BLADDER INJURY..... ascending cystogram will diagnose for BLADDER RUPTURE while IVP, CT, USG for kidney injury.....
- 26) Priapism is caused by SICKLE CELL DISEASE, INJ OF PAPAVERCINE
- 27) Most common part of urethra which is ruptured in PELVIC FRACTURE = MEMBRANOUS URETHRA -0
- 28) Cryptorchidism mostly unilateral (on right side).....do surgery after 1 year and before the child goes to school..... complications: i) cancer ii) Torsion iii) Trauma iv) Atrophy v) Hernia..... Orchidopexy is done but it does not reduce the chance of malignancy in testis..
- 29) Sudden onset of testicular pain..... TESTICULAR TORSION..... differentiate from EPIDYDIMO-ORCHITIS by PREHN SIGN..... Doppler USG is confirmatory but do immediate surgery..... ORCHIDOPEXY (by scrotal incision)..... other normal testis should also undergo ORCHIDOPEXY.....
- 30) For testicular tumors..... ALWAYS DO HIGH-INGUINAL ORCHIDECTOMY... (not scrotal)..... after histological diagnosis..... for SEMINOMA = RADIOTHERAPY..... for TERATOMA = CMBV (cm ki bv) Cisplatin, methotrexate, bleomycin, vincristine.... retroperitoneal lymph node dissection can also be done.

31) Congenital hydrocele is the only hydrocele which is treated by HERNIOTOMY; and it communicates with peritoneum..... it presents with intermittent hydrocele..... when patient lies down = hydrocele disappears..... if congenital hydrocele is bilateral = think abt ASCITIES.

32) Hydrocele and Epididymal cyst = both are transilluminant + but hydrocele is not separated from testis whereas Epididymal cyst is separated from testis; is bilateral mostly and feels like bunch of grapes.

33) For other hydroceles = do either Jobley repair (eversion of sac)...../.....Lords plication

34) Spermatocele is UNILOCULAR retention cysts arising from epididymis.... fluid resembles BARLEY WATER and contains spermatozoa...mostly located on upper pole

35) in the end..... REMEMBER= NEVER EVER USE SCROTAL APPROACH FOR ORCHIDECTOMY FOR TESTICULAR CANCER..... JUST USE HIGH-INGUINAL APPROACH....

SHAHRIYAR

SALIVARY GLANDS NUGGETS

1) There are 450 minor salivary glands and contribute 10% saliva. They are histologically similar to major salivary glands and may be found on lip mucosa. Their tumors are more likely to be malignant(90%) as compared to major salivary glands.

2) If any salivary gland tumor is <1cm and benign = do EXCISIONAL BIOPSY

3)Sublingual gland lies on mylohyoid muscle. It is paired and each of the part has more than one duct. 85% of Sublingual gland tumors are Malignant and treated by Wide excision with neck dissection.

4) Mucus retention cyst of sublingual gland = Ranula....translucent swelling on floor of mouth (just like frog belly); brilliantly trans-illumination..... Rx: excision of cyst and sublingual gland

5) TUMORS:

i) 90% minor salivary glands = Malignant

ii) 85% sublingual gland = Malignant

iii) 50% submandibular gland = Malignant

iv) very low PAROTID tumors are malignant and mostly are benign

Means: smaller the gland = more likely the chance of malignancy

6) Inflammation of submandibular gland = Sial-adenitis= leads to radio-opaque stone formation

7) Stone in salivary gland = Sialo-lithiasis: = SWELLING precipitated by eating and relieved 1-2 hrs after meal

i) Submandibular stone= RADIO-OPAQUE; Dx by XRAY; remove by longitudinal incision... most common stone in salivary gland: SUBMANDIBULAR

ii) Parotid stone = RADIOLUCENT; dx by Sialography (USG) remove along with parotid gland..... Do not do Sialography in acute suppurative parotitis

8) Parotid gland lies on MASSETER..... It contains: i) Facial nerve
ii) External carotid artery iii) Retromandibular vein

9) Most common benign tumor of parotid = PLEOMORPHIC ADENOMA = mostly involves the superficial lobe of gland = if long standing - →transform into malignancy....Dx: FNAC.....Rx: Superficial parotidectomy....(Never do just enucleation b/c of risk of recurrence).....If deep lobe involved so that tonsils are pushed medially = total parotidectomy

10) Signs of malignancy: i) Recent size increase ii) Involvement of skin iii) Facial nerve palsy iv) Cervical lymphadenopathy

10) Most common malignant tumor of parotid = MUCOEPIDERMOID CARCINOMA.....Dx: FNAC.....Rx: If low grade = Superficial parotidectomy (patey's operation).....If high grade = Radical parotidectomy

Acini cell carcinoma is low grade and exclusively found in parotid

11) Complications of parotid surgery: Hematoma, seroma, frey, infection, facial nerve palsy, great auricular nerve damage

12) Frey syndrome = gustatory sweating b/c of regeneration of parasympathetic fibers..... Dx: Iodine starch testRx: Tympanic neurectomy, botulinm toxin..... PREVENTION: Place muscle flap from SCM b/w skin and parotid/ facial flap/ insert artificial membrane

11) All salivary glands tumors are most commonly found in parotid gland except

- i) Adenoid cystic carcinoma = Minor salivary gland
- ii) Squamous cell carcinoma = Submandibular gland

12) Most common benign tumor of salivary gland = pleomorphic

13) Most common malignant tumor of salivary gland = mucoepidermoid

14) Most common malignant tumor of minor salivary gland = adenoid cystic carcinoma

15) Most common benign tumor of parotid in children = hemangioma

16) Most common radiation induced neoplasm of salivary gland = mucoepidermoid carcinoma

17) All parotid tumors are more common in females except WARTHIN TUMOR which is most common in males; WARTHIN TUMOR arise exclusively from parotid gland; mostly found in tail of parotid; 10% bilateral; Rx by SUPERFICIAL PAROTIDECTOMY

18) Adenoid cystic carcinoma is most common malignant tumor of minor salivary glands; it is low grade; and shows PERI-NEURAL INVASION.

THYROID NUGGETS

- 1) For thyrotoxicosis : if <45 years = do surgery..... >45 years = Radioiodine ablation
- 2) If Goiter and thyrotoxicosis appear simultaneously = primary thyrotoxicosis
- 3) If goiter appears early and thyrotoxicosis late = secondary thyrotoxicosis
- 4) Cardiac signs are more pronounced in Secondary whereas eye signs are more pronounced in primary thyrotoxicosis
- 5) Investigation of choice for TOXICITY with NODULARITY = Thyroid scan
- 6) Treatment of choice for solitary thyroid nodule = Lobectomy/Hemithyroidectomy
- 7) Papillary carcinoma: radiation exposure is a risk factor; It is bilateral and Multifocal in origin; spreads through lymphatics; has best prognosis; diagnosed easily by FNAC; treated by TOTAL THYROIDECTOMY with neck dissection. & post op radio-iodine
- 8) Follicular carcinoma: endemic goiter is a risk factor; unifocal; more aggressive than papillary; hematogenous spread; poor prognosis and greater recurrence rate; can't be diagnosed with FNAC; treat by TOTAL THYROIDECTOMY with neck dissection & post-op radio-iodine
- 9) Medullary carcinoma : RET proto-oncogene mutation; associated with MEN-2; multicentric c-cell hyperplasia; spreads to lymphnodes; high levels of CEA and CALCITONIN..... Treat with TOTAL

THYROIDECTOMY with neck dissection.. but there is **NO ROLE OF POST-OP RADIO-IODINE**... If at any time in patient life RET oncogene is found in screening..... do prophylactic thyroidectomy even if there is no evidence of medullary carcinoma

10) Anaplastic carcinoma: Worst tumor; diagnosed by TRU-CUT biopsy..... treat with radiotherapy ... but if TRACHEAL OBSTRUCTION= do ISTHMUSECTOMY..... remember: never to tracheostomy if emergency tracheal obstruction has happened b/c of anaplastic ca.. always do isthmusectomy b/c tracheostomy may cause it to spread

11) Lymphoma : associated with autoimmune thyroiditis; diagnosed by FNAC but needs further confirmation by TRUCUT.... for early stage = radiotherapy,, for late = chemo

12) The most common cause of respiratory distress after thyroidectomy is TENSION HEMATOMA/ Reactionary hemorrhage leading to Laryngeal edema..... Rx: Do wound exploration and secure airway

Early comp of thyroidectomy: Hemorrhage, Infection, thyroid storm, Nerve (RLN, ELN), Respiratory obstruction

Late: Insuff, recurrence, Exophthalmos, Keloid, stitch granuloma, Parathyroid insuff

13) After papillary and follicular carcinoma of thyroid.... to prevent recurrence of thyroid ; SUPPRESSIVE DOSE OF THYROID is given (200ug)..... but after medullary carcinoma.... REPLACEMENT DOSE IS GIVEN (150ug).

14) Technicium-99 sestimibi (MIBI) isotope scan localizes the Parathyroid gland before surgery.....if after recurrence : localize by CT, PET, MRI, arteriography.....Adenoma :

remove..... if hyperplasia: remove all 4 glands..& implant 50mg parathyroid tissue in brachioradialis.

15) Insulinoma : whipple triad..... C-peptide

16) ZES = gastrinoma = malignant = found in gastrinoma triangle =
Fasting gastrin: >1000ng/dl..... SECRETIN STIMULATION TEST
: >200pg/ml increase secretin

SHAHRIYAR

BREAST NUGGETS

1) Fibroadenoma (1-2cm) : most common breast tumor <35 years... firm rubbery mass (Breast mouse)..... do triple assesment.... Excision / enucleation

2) If fibroadenoma>5cm = Giant fibroadenoma



3) Phyllodes tumor : females >40 years... mass >5cm..... arise from proliferation of stroma..... have somewhat malignant potential... do triple assesment..... Rx by Wide local excision with rim of normal tissue

4) Bloody discharge from nipple without any palpable mass = Intra-ductul PAPILOMA..... do triple assesment..... Rx by Microdiscetomy

5) Bloody discharge from nipple with palpable mass = Breast cancer

6) Galactorrhea: milky discharge from nipple

Most common physiological cause: nipple stimulation/ sexual intercourse

Most common pathological cause: Prolactinoma

Most common non-pituitary pathological cause: Hypothyroidism

7) Galactocele is associated with use of OCP = do aspiration

8) Smoker female with greenish brown / greenish black discharge, slit like nipple retraction and painful sub-areolar mass, sometimes fistula formation = DUCT ECTASIA/PERIDUCTUL MASTITIS/PLASMA CELL MASTITIS = Do triple assesment = Rx: antibiotics and Hadfield operation (Cone excision) / Microdocheotomy (tennis racquet incision)

Hadfield operation: done if the site of discharge is uncertain.... Cone of tissue removed and defect filled by purse suture/suction drain

9) Breast cancer <3cm = Do Breast conservation therapy

>3cm = Modified radical mastectomy

10) Breast conservation therapy includes:

i) Wide local excision with 1cm healthy margin

ii) Axillary lymph node dissection

iii) Post-op Radiotherapy

11) Modified radical mastectomy: Whole breast along with nipple areola removed; axillary lymph nodes upto level 2; PECTORALIS MINOR IS ALSO REMOVED but PECTORALIS MAJOR NOT

12) Post op hormonal therapy:
premenopausal = Tamoxifen
postmenopausal = Anastrozole

13) Tamoxifen decreases the recurrence and incidence of bone mets ... also decreases the death rate and should be given for 5 YEARS.

14) The most common indication for post-op RADIOTHERAPY is BREAST CONSERVATION THERAPY.... it decreases the recurrence but not METS....

15) After radiotherapy and axillary dissection = Chance of LYMPHEDEMA IN ARM INCREASES.....and this LYMPHEDEMATOUS arm may transform into MALIGNANT= ANGIOSARCOMA/ LYMPHANGIOSARCOMA... (imp mcq)

16) In pregnancy with breast cancer;
No radiotherapy in pregnancy
No chemotherapy in 1st trimester

17) Slit like retraction = periductal mastitis

18) Circumferential retraction = Carcinoma

19) Benign horizontal retraction (simple nipple inversion of unknown etiology) =

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