

Tutti Frutti - Step 1

Graphs, Radiology, Slides, etc:

- Quality of x-rays, great; quality of histo +/-; quality of macro satisfactory; quality of diagrams, too small (at least for me, extremely difficult to read letterheads); quality of graphs (curves, drugs) simple and understandable
 - *: right ans
1. CXR w/pneumothorax, also obvious from q stem
 2. CTA, asked about liver perfusion, ?position intraart cath for injection: radiologist inserted catheter through _ fem artery, aorta, celiac _ proper hepatic artery
 3. Cerebral angiography; clinica of ACA infarct (leg), show artery on cerebral angiography
 4. Cervical rib - cervical spine x-ray, obvious symptoms from q stem
 5. Calcific tendinitis on shoulder x-ray, ?calcification: ?supraspinatus* ?subscapularis
 6. Infant w/Hx of perinatal infection, non communicating hydrocephalus, sagittal MRI, show site of obstruction: _aqueductal stenosis*
 7. Large SDH (acc to brain CT image); cannot exclude Epidural; however after “following day/24h”.....LOC, interval pt was “lucid”, asked about what ruptured, both choices: middle mening art (epi) and bridging veins (SDH); tricky...
 8. Endometrial ca path micro (even not related to q); MOA estrogen* as carcinogen
 9. 35 y o female, CIN slide, multiple partners, asked about assoc _ HPV
 10. Diarrhea, slide w/probably Giardia, asked about cause of malabsorption sy
 11. History of HIV w/ abn CSF(meningitis like, lymphocytes etc) and multiple ring enhancing lesions of varying sizes on CT (not showed, just described on q stem); showed histo slide (not India ink), ?bug: ?nocardia, ?toxoplasma, ?cryptococcus
 12. Brainstem lesion- gross, show area according to clinica
 13. Arrow on aqueduct of Sylvius -gross anatomy, ?lesion at this level; non-communicating hydrocephalus*
 14. Diagram about protein translation
 15. Drawing of alveolar wall (quite bad) which cell of the horrible diagram is a pneumocyte type II
 16. EM slide: asked about connexons
 17. EM slide: show desmosome, asked about function
 18. Multiple myeloma path micro, asked about pathogenesis

19. ECG with extrasystole, choose the strongest complex (immediate after extrasystole*)
20. Gross spinal lesion in dorsal columns (same as CD) asked about pathogenesis
21. LOTS of physio diagrams
22. Celiac disease; path slide; asked about protein malabsorption (?)
23. Gross kidney + staghorn calculus, asked about bug: Proteus*
24. Gross kidney, young boy + Tu: asked about tu supp gene: WT1
25. Picture of pt w/superficial varices in lower extremity, ?pathogenesis (?stasis, ?insuff valves, ?chronic DVT)
26. Picture w/vesicles within great toe of kid....? Perhaps HSV, asked about virus: ans incl shape, dna/rna, single/double strand but did not mention the virus
27. Pedigree of Duchenne's in a girl (Mec of inheritance)
28. Picture with child w/blue sclera (OI), asked about pathogenesis
29. Funduscopy of diabetic pt

Pathology + Physiology:

1. Pt described with hematuria, flank mass,?disease: Renal cell ca (hypernephroma*)
2. Pt with vertebral compression # + multiple blastic lesions, most likely? Metastatic prostate adenoca
3. Pt w/Hx of working in an asbestos factory + heavy smoker, now SIADH + weight loss ?small cell* ?mesothelioma ?bronchioalveolar
4. Pt w/abn CSF, lymphocytosis, cranial nerve palsies,? most likely: TB meningitis*
5. Pt w/severe osteoporosis: arrows for PTH, ca⁺⁺, P,etc know this table from BRS path very well..at least 2 or 3 qs
6. Newborn at term, infant of diabetic mother, resp distress,?most likely: Meconium aspiration sy
7. Described pt suffering from Horner's sy, etc ?underlying disease: Lung ca*
8. Description child w/findings consistent w/ nephrotic sy , urinalysis? ovoid fat cells*, RBCcasts, WBC casts etc
9. Atrophic pancreas + calcifications on CT, ?underlying disease: ?alcoholism*, ?gallstones
10. Pt w/incr amylase, midepigastic pain, known cholelithiasis; ?etiology: ?cbd stone, stone in ampulla?, stone in cystic duct?
11. Bartholin's abscess
12. Pt w/hydatiform mola, ?karyotype
13. Pt a month after resection of hydatiform mola, incr hCG, ?chorioca ?residual placenta

14. Type of diarrhea in AIDS pt
15. Type of diarrhea in Immunocompromised
16. AIDS pt +ring enhancing lesions on CT, abn CSF, +path slide; not India ink!, ?Nocardia, ? Toxoplasma ? Cryptococcus
17. Von Willebrand /ITP/TTP 3 or 4 qs w/different values of incr, decr or N PT, PTT, etc know this well
18. Female 80 yo, on X-rays Dx of OA, pt with articular + muscular pain, given NSAID, got better, ?mostlikely: ?polymyalgia rheumatica ?RA
19. Boy with large polyp in rectum containing different tissue types: ?hamartoma, ?Angiomyolipoma etc
20. What happens to GFR, RPF, etc if u constrict efferent arteriole (arrows)
21. Soccer player injured, ligamentous rupture; didn't wan to move, died week after,?most likely at autopsy: ?large PE*, ?small PE...
22. Female w/URI, a week after presented w/pain described to me sounding like (relieve when she lies like muslin praying etc) pericarditis*
23. Pancreatic secretion as prohormone/proenzyme (don't remember): insulin + peptide C
24. Coupling actin/myosin, ryanodine receptor, at least 2 or 3 qs
25. Most precise for diagnosis of DIC? Incr fibrin degradation products*
26. Melanoma, ?worst prognosis: vertical growth*
27. s/p tear muscle, fibrosis at scar, what would be affected? Tension? relaxation? Etc
28. s/p terminal ileum resection, what would be affected? Lipid absorption*? Intrinsic factor secretion?(READ the stems VERY carefully....many of u ans very quickly...and I remember LOTS of qs that were like this one....vit B12 absorption would be impaired but not secretion.....)
29. Pt w/HCCa, single test that would be most diagnostic: HCV* (no option w/HBV)
30. Infant with retinal hemorrhages, fell from sofa while mother boyfriend was taking care of him: Shaken baby sy*(there's an identical qs in webpath....)
31. Patient described w/bilateral hilar lymphadenopathy, bilateral parenchymal infiltrates, epithelioid cells, no fever, etc (sarcoidosis *, TB not an option...similar q in BRS)
32. Pt w/testicular tu? Assessment spread, what's better: ?CT abdo, ?CT pelvis, (tricky/bad q)?palpate ingu. LN...etc
33. Pregnant female w/Sheehan's sy ?pathogenesis: ?ac interruption hypophyseal portal system*, ?slow interruption etc
34. Inhibin regulates?: FSH*

35. N pt w incr pH (7.6), decr bicarb, what mixture is breathing: ?20% O₂, 75% CO₂, 5% N₂?; N₂ 75%, 5% CO₂; 20% O₂?
36. Hb shift to the right: Metabolic alkalosis, graph
37. Pt w/ systolic murmur, thrill apex, etc ?VSD*
38. Female from SE Asia, pregnant, murmur described as MVP, ?pathogenesis
39. Calculate SV from Fick's principle
40. 16 yo girl w/1^o amenorrhea, 1.40m 45kg, ?most likely ovarian appearance: ?atrophy* (Turner's), ?polycystic
41. Endometrial ca
42. Pt w/known gralized complex sz; now described w/partial sz (only hand etc), where is the focus? temporal lobe*
43. Pt goes for routine check up on tread mill, ST elevation, coronary art OK on angiocath, ? which TX, with arrows: to decr afterload, decr CO etc
44. Headaches – types. Migraine...woman vomits, etc at least 3 or 4 qs about headaches
45. Cluster headache *: M.C in men
46. Barbiturates intoxication, ?typical liver findings on biopsy/autopsy: incr SER* (BRS path)
47. To prevent reperfusion injury in mice (during experiment): give antioxidant 1h before, just before injury etc
48. Factor XIIa*: links coagulation, kinin and complement
49. AAA incr risk for damage in/after surgery?, sigmoid colon?, jejunum?, ileum? cecum?
50. Length, tension, force velocity relationship
51. Calculate diffusion or not, given weird numbers of hydrostatic P, oncotic P etc
52. Hyperaldosteronism, different forms, many qs
53. HyperPTH, osteoporosis, ca⁺⁺, P and PTH relationship w/arrows, at least 3qs
54. Diabetes, lots of qs, receptor for insulin, receptors for sulfonylureas, glucophage/lactic acidosis, Tx etc, HY!
55. Child w/GI hemorrhage, chronic anemia, given H₂ blocker, gets better, ?most likely disease: GE reflux*
56. Ca thyroid _ radiation exposure*
57. CF, ?receptor: transmembrane conductance regulator*
58. Constriction efferent arteriole, ?consequences: incr GFR, decr RPF, incr filtration fraction (in arrows)
59. Drug which incr bronchial dilatation and decr heart rate, + other (?x) etc?isoproterenol? other? Not mentioned on q stem name of first drug.....kinda weird
60. which option would incr concentration of 1 25 DHD3? Hypocalcemia*(similar in Gannong)
61. Hypoxic vasoconstriction, ?Site: lungs*

62. Patient w/multiple skin ca types,? pathogenesis: defective dimers repair*
63. Decr FEV1sec/FEV relationship, in obstructive disease, asthma
64. Alcoholic + thiamine deficiency, ?findings in autopsy: destruction of mamillary bodies*.

Anatomy:

1. Infant described w/hydrocele (transillumination etc), ?pathogenesis: patent processus vaginalis*
2. Fx medial humeral epicondyle, ?nerve injury: ulnar nerve*
3. Ant compartment sy, lower extremity, ?damage: tibial artery*, deep peroneal nerve* (2qs)
4. Pudendal block for delivery: landmark, ischial spine*
5. Injury upper trunk of brachial plexus, 2 qs
6. Stillborn, olygohydramnios, lung hypoplasia, ?most likely: kidneys' agenesis* (Potter)
7. Hydronephrosis + hydroureter in newborn, ?pathogenesis _Post urethral valves BUT they wrote instead: congenital stenosis of membranous urethra*
8. Pt lies supine, with flexed knee, we ask to raise his leg against R about his thigh, ? which muscle are we testing: ?quadriceps femori, ?iliopsoas, etc
9. Dye passes between cells: connexons* (HY!)
10. S/p thyroidectomy, pt described w/tetany symptoms, ?Tx: give ca++ (*)
11. PTH, on surgery, found only 2 sup and 1 inf parathyroid glands, where to look for the 4th missing one? Thymus*
12. Barbiturates toxicity, pathology in liver? Incr SER*
13. Elderly pt with distended SB on AXR and large bowel just to mid –transverse colon, lactic acidosis, ?most likely: SMA occlusion*
14. How we get retropneumoperitoneum, location of perforation: ascending colon*, jejunum, ileum, cecum, sigmoid
15. Pt described w/huge hiatal hernia, ? associated symptoms: ?lymphatic obstruction*, ?incr vagal activity, ?DVT, varicocele etc(no GER, or GI symptoms mentioned)
16. Embriology middle ear, 1st arch?, 1st cleft?, 1st pouch?, 2nd arch?
17. Why females get more peritonitis from STD?, fallopian tubes open within the peritoneum*
18. Meiosis I: 1^o oocyte +- mitotic spindle? 2nd oocyte? Etc
19. Innervation by chorda tympani: 2/3 post tongue + submandibular+submaxill glands*

20. **Macrophages of liver: Kupffer cells* (Kidney - mesangial cells/ Lungs - alveolar macrophages/ Brain - microglial cells/ Lymph - circulating macrophages)**
21. **PDA closure noted on fetal US,? Drug mother took: indomethacin***
22. **In which part of the adrenal gland mineralocorticoids are secreted? Zona glomerulosa***
23. **Description of 16 y old w/primary amenorrhea, short slightly overweighted (this mentioned just in measurement), poor secondary sex charact, , if u biopsy ovaries, what would u see? Atrophy?; polycystic ovaries?.etc (there were 2 qs one was clearly Turner....the other might be polycystic ovaries as well...)**

Biochemistry:

1. **Alkaptonuria, ?parents asked u about long term prognosis: ?arthritis*, ?renal calculi**
2. **Pathogenesis of CGD of childhood**
3. **Menkes disease, MOA**
4. **In which part of the cell removal of the introns from mRNA take place?: nuclei*?, RER? Golgi? Etc**
5. **CF, MOA receptor, CF transmembrane conductance regulator gene _ defect in Cl- channels* (CF is HY, many qs)**
6. **SCD (but not in q stem), they said disease caused by substitution val for glu, question about which type of bond of bond is affected....**
7. **Mother Hx of myelomeningocele, son with MMC, which vitamin decreases risk for this abnormality? Folate***
8. **Hypercholesterolemia, ?pathogenesis: ans description of LDL receptor (Receptors and second messengers r extremely HY!)**
9. **tRNA wobble diagram, asked to show site of different functions (2 qs..similar q in retired or self test)**
10. **Fetal alcohol sy: 2 qs**
11. **Tx child with hyperammonemia, etc**
12. **?Reason some pts get lactic acidosis post alcohol ingestion....know everything u can about OH**
13. **McArdle's described, ? enzyme: muscle phosphorilase**
14. **Von Gierke's*, description disease**
15. **Drawing IG, where does the Ag bind?**
16. **Multiple skin ca (xeroderma pigmentosum), ?what's wrong; DNA repair defect***

17. **Mother has 2 y old son w/ MPS w/ decr iduronidase and w/N chromosomes, now she is pregnant again, amniocentesis is done, demonstrated decr iduronidase, what else is necessary to be done: ?check for MPS in amniotic fluid*, ?chromosomal analysis, ?fetal biopsy of the liver, ?mothers liver biopsy**
18. **Prader Willi sy, paternal imprinting, microdeletion 15q***

Beh. Sciences:

1. **Pt described w/delirium* post cholecystectomy**
2. **Girl with IDDM, not compliant, feel embarrassed about disease, etc**
3. **Informed consent, 2qs**
4. **Calculate odds ratio, all values were not given in tables, u have to make ur own table and understand where in the q stem u have to pick the values...very imp!! Lots of qs...this is not difficult and worth knowing this..of course for everything sensitivity, specificity, PPV, NPV etc**
5. **Asked about a new test, check values glucose many times, given the measurements, what r u checking; ?precision*, ?accuracy**
6. **Test with high specificity is useful to confirm a diagnosis**
7. **Clinical trial described u have to choose it from the options**
8. **Power**
9. **Boy w/ADHD, last year at school, he did ok, present year not, who is ashamed: ?teacher, ?parents etc (doctor at least not mentioned)**
10. **Bipolar disorder (student says her project would save the world, doesn't sleep, etc..1 y before, 1month depressed all time in bed..)**
11. **Adolescent pt w/symptoms of depression, highest risk for suicide attempt: previous attempt w/ASA**
12. **Asked about narcissistic personality**
13. **Schyzoid pt? Schizophrenia?, etc**
14. **Woman doesn't want to have sex more than once in 2 months; ?name of disorder**
15. **8 y o girl with pain etc in introitum, doesn't allow physician to check that area, starts yelling not again, Dr asks about abuse, mother gets upset, wants to leave the room, what do u do next: ?inform the mother that she has to stay until u check the girl adequately, ?Call security....**
16. **20 y o pt with ribs fractures, bruises etc while checking her she realized it's late, and she says she has to go back home, if not her husband gets very upset, how do u approach her?**

17. 30 + y o, mom of 3 kids, says she feel hopeless, cries all days, etc, ?TX
18. Pt referred for primary amenorrhea, eventually she is XY, and how do u explain this to the patient?
19. Pt w/ breast lesion on palpation, what do u tell the patient: feel something there, u don't know what is it, so u would like her to have a mammo done (most reasonable option)
20. Tx of bulimia
21. Pt w/certain ca type, according to statistics: 1y sv: 90%; 2y SV: 85%; 3y SV:80%; 4y:75%; 5y sv: 70%*; pt has this ca for 2 y, ?survival by 5ythis is very simple when u talk about survival u don't have to make calculations....it doesn't matter how many years that pt has the disease...
22. Q about Chlamydia in students, prevalence decrease /increase of what? (options incl they treat more pts, less awareness (don't remember exactly...so they described u several situations that might cause these changes...so u need to understand what they r talking about, very HY epidemiology/stats!)
23. Old male with classical podagra symptoms, + incr ESR, u have to TX w/steroids, lots of AE to this TX, what makes u decide to biopsy?: If it's going to change management*?, to show medical student? etc
24. Narcolepsy
25. Pt that does what she wants goes and chat all time at nurse station, etc, how do u treat this pt? be assertive
26. Elderly pt recovered from CVA, pt speaks slowly, daughter says he is depressed, bad mood, etc, ?what do u do next: ?ask the patient* (ALWAYS whenever possible), ?ask the nurses etc
27. Person who committed brutal suicide, which NT is decr? Serotonin, ?NE
28. Scheme about sensitivity, etc similar to CD
29. Phenotype mentally retarded, fragile X, at least 3 qs of fragile X.
30. Most important preventable cause of cancer: smoking
31. Depression
32. Normal grieving

Micro, Immuno:

1. Pt w/CF and bronchiectasis, gets pneumonia, ?bug: P. aeruginosa
2. HZV, why do u give acyclovir? To reduce duration and severity of symptoms of present disease
3. virus: description disease, asked about etiology: virus not mentioned just morphologic description: DNA/ RNA, double or

- single stranded, icosahedral, naked etc (3 or 4 qs like this, 1 w/HSV, 1 w/mumps, 1w/exanthema subitum)
4. Female from NW USA, gets cardiomyopathy? Etiology? Viral? Bacterial.....
 5. Nasopharyngeal ca a/w: EBV
 6. Girl from rural area, no immunizations, doesn't go to school, sore throat, high fever, exudative membranes-likes (not pseudomemebarnes; ? diphtheria, ?Group A strep (it seemed to b diphtheria..esp since they said no immunization, similar qs in Pretest vignettes)
 7. boy 13 y o, swims every morning, on physical exam, pain why u press tragus, pain EAC, etc ?Bug; pseudomona
 8. Nurse with sinusitis and air-fluid level on x-rays; bug needed factor V and X, ?source: from hospital?, from patient? N flora from nares?, N flora from nasopharynx?
 9. Ig A deficiency vs. Hyper Ig M syndrome
 10. Boy and brother get meningococcus, ?deficiency (late Complement)
 11. Pt described w/HZV, Gram and Wright stains done?findings....multinucleated giant cells...
 12. Experimental mice w/Bruton's tirosinase deficiency, which bug r they more prone to get infections from?
 13. CIN a/w HPV
 14. Picture w/staghorn, ?bug: proteus
 15. Mother gets a cold, her child gets a more compl disease a week later w/symptoms like epiglottitis; ?bug: ?parainfluenza, ?RSV
 16. Which bugs are used for quality control of a laboratory: ?E.coli + H.influenza, ?E.coli +....
 17. Pt went to Africa, came back w/malaria, given 2 drugs incl primaquine, ?why
 18. Pregnant female gets CMV, ?perinatal infection, ?congenital infection etc
 19. CGD described, pathogenesis?
 20. HIV, why Tx w/3 drugs? For high frequency of mutational R
 21. Giardia slide _ malabsorption
 22. CD4 _ MHC II

Pharmaco:

1. Pt treated for severe trychophytosis w/griseofulvin, what other drug works at the same timing? Paclitaxel
2. MOA acetazolamide

3. MOA thiazides
4. MOA loop diuretics (diuretics HY)
5. Male w/CHF, gets gynecomastia, ? drug: spironolactone
6. Tx: nephrogenic DI
7. Pt Tx w/captopril, can't stand cough _ Losartan
8. tricyclics + urinary retention
9. Pt w/agranulocytosis: Tx: G-CSF
10. Pt with documented severe allergic reaction to penicillin, what do u give? Cephalosporins? Aztreonam? Vanco?
11. MOA Cyclosporine (asked which one suppresses IL-2....)
Cyclosporin A - direct suppressive effect of B and T helper cells.
12. Tx Hay fever; choose MOA DOC
13. MOA antihistaminic drug
14. MOA Sulfonylureas
15. INH _ hepatitis
16. Procainamide + SLE
17. Flumazenil, diagram, ?competitive antagonist: chlordiazepoxide
18. heroin, now on methadone program, ?adverse effects;
?constipation, SE methadone: constipation
19. Pt treated w/captopril, get cough, change to similar: losartan
20. Prophylaxis contacts w/meningococcus: Rifampin
21. Anions, cations, + acetazolamide
22. Classic: Nortryptiline + MAO inh
23. Nitrates MOA (molecular level) activate guanylate cyclase ...NO
24. Amiodarone, AE: pulmonary fibrosis
25. Milrinone
26. Female 30w pregnant, on prenatal US ductus is closed, ?drug given: indomethacin
27. Showed diagram of stomach physiol....asked which drug acts on H2 receptors.....cimetidine
28. Spindle poisons _ plant alkaloids
29. Tx addison's: fludrocortisone + glucocortic
30. tPA + MOA intrinsic plasminogen? Extrinsic?
Exogenous....kinda confusing
31. 2 curves with effect of 2 drugs X and Y... why is Y steeper and lower than X? because of quicker reabsorption/ elimination/ bioavailability... volume of distribution.. etc...
32. Antagonist drug response curve
33. Parathion poisoning;atropine + ? = Pralidoxime
34. Tx migraine in asthmatic
35. Description of pt. having Absence seizures, Tx? Ethosuxomide
36. Adverse effects of lovastatin _ muscle pain.