

Q1). Person presents with ascites. What would his levels of the following things be (increased or decreased)?

Catecholamines , ADH , renin

Q2). Man at a party was angry but not violent. He was being delusional, kept accusing his gf of cheating on him and his someone trying to kill him. He has used some substance, what is the mode of action of that substance? (cant recall all the options)

A) inhibits the reuptake of dopamine

B) increases the reuptake of dopamine

C) increased the reuptake of serotonin

Q3). woman has 2 cervix but one vagina? What embryological problem led to this?

A) fusion of the mullerian ducts (im not sure if this was their wording)

B) division of genital tubercle

Q4). person has Alzheimer's like symptoms. Couldn't recall 2 out of 3 things he was told to remember. What other problem would he develop first?

A) Visuospatial dysfunction

B) long term memory loss

Q5). pedigree of a lady's father having some red green color blindness. What is the probability her unborn son 46 XY will have the disease? Pedigree showed that the lady's father had the disease. Father had 4 kids none of whom had the disease. Lady had three girls, none of whom had the disease and this is her 4th pregnancy.

A) 1 of 2

B) 2 of 3

Q6). 6 weeks old baby is lethargic and developed fever. Mother thought she has some viral infection. Showed up to the hospital and this is what the labs show.

Low glucose, high lactate, high Uric acid(I'm not sure)

Kid also has hepatomegaly

The substance that will accumulate in her body is formed from the following?

A) glucose

B) cholesterol

...

Q7). when Ach is administered in normal smooth muscle cells it causes vasodilation, when given with smooth muscle cells that have endothelial cells removed causes vasoconstriction. Which drug can u give now (that is without the endothelial cells) that would still cause vasodilation?

A) atropine

B) bathenecol

C) nicotine

Q8). Similar question as the one above, where they had mentioned when Ach is administered to smooth muscles with the endothelial cells present, it results in vasodilation, but when given without endothelial cells, causes vasoconstriction. Ach causes this vasodilation via which mediator?

A) Nitric Oxide

Q9). person has anterior spinal artery level damaged. Looks like thoracic level? What will she present with?

A) motor weakness in the lower limb

B) loss of temperature sensation in her hand

Q10). picture looked like a ring in a blood cell. There was also a hypersegmented cell. But they also mentioned the patient had just travelled to rural China. What other clinical feature would be seen?

A) hemolysis?

Q11). case of lepromatous leprosy. Asked what is defective? Know how to differentiate between the two forms of leprosy since only symptoms were mentioned.

A) Th2 response

B) Th1 response

Q12). Huntington rate is v high in African population. It has been found that the African population originated from a ship of people. What does this signify?

A) some sort of population (I cant recall the word)

B) genetic drift

C) autosomal negative

Q13). colonic polyp. What gene mutation?

A) APC

B) KIT

C) MLH1

Q14). person has medullary carcinoma of the thyroid and marfanoid habitus. What other finding does he have?

A) mucosal neuromas

Q15). psammoma bodies shown. Spinal cord pain. What tumor is it?

A) meningioma

B) schwannoma

Q16). Psammoma bodies are seen in which thyroid cancer?

A) papillary

Q17). 6 transmembrane protein receptor. What is its mode of action?

A) allows ion flow

B) transcription of gene receptor

Q18). ROC curve. Asked for the most accurate one

Q19). Drug that is not bound to proteins but its structure includes amino acids. Which of the following is its most likely property?

A) Crosses the plasma membrane easily

B) Acts on nuclear receptor

C) Decreased volume of distribution

Q20). patient with steatorrhea has ataxic symptoms. What do they have?

A) vitamin E deficiency

Q21). Weird picture of a ventricle cross section. Arrow pointing at something and asked which ventricle is dilated. Looked like lateral ventricle to me and the arrow was pointing towards foramen of Munro

Q22) kaplan meyer curve. Watch randy neils video

Q23) patient with low TSH and low T4. What do they have?

A) tumor of the thyroid gland

B) tumor of the pituitary gland with compressive symptoms

Q24). 11 year old kid with precocious puberty. Tanner stage 4 and v tall for his age. What would u give to the patient ?

A) somatostatin analog

B) GnRH agonist

Q25). ultrasound of poly cystic kidney disease. What is the most significant risk factor in this patient of 25 years?

) family history

Q26). patient with hypopigmentation on hands and presented with orthostatic hypotension I think. Had low sodium levels and high potassium levels. What is defective?

A) reduced cortisol production?

B) reduced aldosterone production?

Q27). Flowchart given and asked which pathway does Ipratropium bromide inhibit?

A) Ach receptor antagonist

Q28). Nurse who has completed 3 doses of Hepatitis B vaccine, accidentally pricks needle of hep B patient, what will you find in nurse blood?

A) Antibody to HbsAg

Q29). baby born with right scrotal swelling. On the ultrasound which was performed during pregnancy, anechoic crescent shaped swelling seen ? What does he have?

A) failure of obliteration of processus vaginalis

B) hernia

Q30). qs on ARDS patho physio. I.e alveolar capillary membrane damage

Q) too many qs on breast

Q31). Phyllodes tumor histology was given. Info mentioned was breast retraction and calcification I think. Had to recognize what it was?

A) Phyllodes Tumor

Q32). lady involved in a traumatic car injury involving thorax. Few weeks later presented with a mass with irregular borders on top outer quadrant. Was calcified and fatty macrophages found. What is it?

A) fat necrosis

B) fibroadenoma

Q33). patient presented with the following lesion on the face. Skin colored but a central ulcerated portion. Dude worked as a land something. What's the most common cause of this?

A) occupation history (considering it was cutaneous leishmaniasis)

Q34). Achilles' tendon fat deposits. Which Apolipoprotein is defective?

A) ApoB100

B) ApoB48

C) ApoC 2

Q35). patient has recurrent vesicles on penis. Where is the pathogen involved latent?

A) peripheral nerves

B) CNS

Q36). patient went hiking. Came back and now has fever and a weird rash that started from arm and then to trunk and then face. Cause? (The picture showed a red papular rash on the wrist and the inner side of the arm)

A) Rocky mountain spotted fever

Q37). person presented with shortness of breath and slightly blood tinged sputum. X ray showed mediastinal dilation. Mediastinal lymph nodes also looked enlarged. The patient recalls receiving an envelope few days back which contained some white powder. The responsible agent involved what?

A) adenylate Cyclase

B) nuclease

C) ribosylation

Q38). nodular opacities were seen on a patients chest x ray but they were not seen when bronchoscopy was done. Lateral chest x ray given which also showed nodular opacities,

What is the cause?

Q39). baby bleeding from stump of the cord. No purulent discharge. PT and PTT were normal. What is most likely defective in the kid ?

A) Factor 8

B) factor 9

C) VwF

D) protein C

E) protein S

Q40). chediak higashi baby described. Where is the defect?

A) defective phagosome receptor

B) increased lysosome activation

Q41). S1 nerve root damaged. Patient can't stand on toes. What other thing does he have?

A) atrophy of tibialis anterior

B) loss of patellar reflex

C) rectal muscle atrophy

D) something that I can't remember, might've been the answer

Q42). lady had some ovarian mass ruptured. She's also complaining of shoulder pain. What nerve roots are responsible for the shoulder pain?

Q43). pharyngitis caused by a strep group . Which streptococcus is it?

A) alpha hemolytic

B) beta hemolytic

C) gamma hemolytic

Q44). nitrite negative infection. Picture shows gram stain of staph clusters. Which pathogen?

A) staph saprophyticus

Q45). baby in picture has cleft palate. Defect in which embryological defect?

A) failure of the lateral palatine processes to fuse

Q46). Baby lost his third and fourth finger when born. Cause?

A) amniotic band syndrome

Q47). patient had a kidney transplant 2 months back. Now taking cyclosporine. Presented to the clinic. Kidney biopsy shows mononuclear infiltration. Cause?

A) acute rejection of transplant

B) direct result of cyclosporine on the kidney

Q48). patient presents with abdominal pain. Vessel shows **fibrinoid necrosis** and **microaneurysms**. What is it?

- A) **polyarteritis nodosa**
- B) microscopic polyangiitis
- C) Henoch-Schönlein purpura
- D) Kawasaki disease

Q49). patient has conjunctivitis and arthritis like symptoms. Also has genital lesions. The diagnosis is associated with.

- A) **HLA B27**

Q50). **third degree** burn qs

Q51). patient presents with vestibulocochlear nerve defects. Bone pain. MRI showed sclerotic bone

- A) **paget disease**
- B) osteosarcoma

Q52). patient can't hold a pen. Sensory receptors involved.

- A) Ruffini
- B) **merkel**
- C) pacinian

Q53). what happens in epilepsy?

- A) **sodium channels spend less time in inactivated state**

Q54). what statement about ventilation during non REM stage three is correct ?

- A) **reduced response to hypercapnia**
- B) increased tidal volume
- C) hypocapnia

Q55). medial geniculate body to be marked in temporal lobe lesion

Q56). lower MCA infarct seen in picture. What does the patient have?

A) expressive aphasia

B) **fluent aphasia** Wernicke's aphasia

Q57). label oculomotor nerve.

https://www.shutterstock.com/shutterstock/photos/214261441/display_1500/stock-photo-cranial-nerves-of-brainstem-ventral-view-posterior-part-of-the-brain-adjoining-and-structurally-214261441.jpg

Q58). patient has sense of smell before seizures. Where do her seizures originate from?

A) **temporal lobe**

Q59). subdural hematoma shown in picture. Which veins affected?

A) **bridging veins**

B) circle of Willis

Q60). what if inhibited in a granuloma would result in dissemination of the infection?

A) **TNF- α**

Q61). blurry vision developed in a patient that started from the superior quadrant. Initially patient also had a complaint of floaters and flashes for days. What is the cause?

A) **vitreous hemorrhage**

B) foreign body

Q62). bitemporal hemianopsia

A) **craniopharyngeoma**

Q63). rinne and Weber qs on conductive hearing loss

Q64). baby has retinoblastoma. The gene involves which phase of the cell cycle?

A)G1-S

Q64). patient with malignant hyperthermia. Given dantrolene. Mode of action?

A) inhibits the release of calcium from sarcoplasmic reticulum

Q65). paclitaxel inhibits what?

Tubulin

Q66). qs on denial

Q67). qs on altruism

Q68) patient was brought to the ER in an unconscious state. Was administered naloxone. His condition improved. Now few days later patient says he's experiencing withdrawal. What would most likely be seen in the patient?

A)increased bowel movement, diaphoresis, dilated pupils

Q69). A patient with hypersomnia. Both at night and in the day. Which hormone is deficient?

A) orexin

Q70). patient has envelope like crystals in urine. What will you treat him with?

A) Thiazide diuretics

Q71) staghorn stone picture given and asked what it is?

https://www.webpathology.com/slides-13/slides/Kidney_StaghornCalculus_Gross.jpg

A) stag horn calculus

Q72). patient has club foot. What error?

A) deformation

B) malformation

Q73). which of the following can be used as the hall mark for innate immune response?

A) IL12 levels

B) PAMPs

C) the rest of the answers were adaptive

Q74). 10 days after administration of rituximab patient develops urticaria and some other allergic symptoms. His previous rituximab administration was normal. What hypersensitivity?

A) 1

B) 2

C) 3

D) 4

Q75). NK cells kill by?

A) granzymes

Q76). which pathway in complement activation predisposes a person to neisseria when defective?

A) classic

B) alternative

C) lectin

D) terminal

Q77). an obese person is having shortness of breath. What is the most likely cause?

A) decreased outward recoil of the chest

B) increased outward recoil of the chest

C) decreased outward recoil of the lungs

D) increased outward recoil of the lungs

Q78). person replaced carbs with amino acids. What would be increased?

A) urea cycle activity

B) increased glutamine production

Q79). PNH described. What is defective?

A) decay accelerating factor

Q80) PNH described. What is deficient?

A) complement inhibitor

Q81). patient has BPH. BPH is formed due to:

A) hormonal causes

Q82). osteogenesis imperfecta child described. Asked the type of collagen defective:

A) I

B) II

C) III

D) IV

Q83). Frank-Starling law. Why does the cardiac output increase when the preload increases?

A) increases the stretch on the myocardial cells ?

Q84). an experiment was conducted in which increasing the dose increased the adverse effect. Previous data was picked up from previous similar researches which showed that an increased dose actually increased the chance of developing the adverse effect. Biochemical processing showed so and so properties of the drug contributed to the adverse effect. However the same adverse effect can also be caused by multiple other drugs. What does this research cover?

A) dose-dependent response, strength of association, biological plausibility

B) dose-dependent response, biological plausibility, specificity

Q85). several qs with OR given and confidence intervals given for different studies and we had to compare which one was statistically significant and which one wasn't

Q86). folate deficiency. What is this vitamin used up for?

A) nucleotide synthesis

Q87). Patient has tingling sensation and slightly ataxic. Which vitamin deficiency?

A) pyridoxal phosphate

Q88). pain when patient opens his jaw. Which nerve is involved?

A) trigeminal nerve

Q89). patient has fungal nail infection. What is the MoA of the drug used in this patient?

A) squalene epoxidase inhibitor

Q90). old male patient. Morning stiffness in his knees lasts for 15-20 minutes then gets better. Pain gets worse at the end of the day. Synovial fluid analysis of his knee was done. Didn't have any leukocytes. What is the most likely diagnosis in this patient? (Didn't mention the pathologies directly but a v generic point related to each)

A) osteoarthritis

B) rheumatoid arthritis

C) paget disease

Q91). drug results in same K_m , changed V_{max} . What type of drug is it?

A) non competitive inhibitor

B) competitive inhibitor

Q92). lights criteria. Pleural fluid protein/serum protein was 0.6. What must be the most likely cause here?

A) malignancy

B) mycobacterium tuberculosis infection

Q93). 20 year old woman with hypertension. Renal bruits are heard. What is the most likely cause of this?

A) fibromuscular dysplasia

B) atherosclerosis

Q94). man keeps developing abscesses. The drug administered has the following mode of action?

A) bacteria cell wall inhibitor

B) bacterial protein synthesis inhibitor

Q95). Man with peptic ulcer disease. a drug is used with bactericidal activity which binds to the ulcer base. What drug is it?

A) bismuth subsalicylate

B) metronidazole

C) macrolides

Q96). Person wants to design a case control study. What should be the first most step he needs to take?

A) Define case

B) Identify the persons with the disease

Q97) study is conducted in which the people are recruited based on exposure status. What type of study?

A) Cohort

B) case control

Q98) 2 murmurs. One of them had it mentioned in the question that the murmur was causing carotid bruit so it was easy to identify it was **Aortic Stenosis**. The other one sounded like **mitral valve prolapse** to me, nothing was mentioned in the question.

Q99). Patient went for trip to Colorado mountains, had **berries** and **water of lake** then presented with diarrhea

A) **Giardia**

Q100). Some experiment was conducted in which bacteria were allowed to grow on a medium. And after months the medium was checked. Which bacteria will still be surviving?

A) **Bacillus anthrax, clostridium?**

Q101). HPV infects which cells?

A) **epithelial cells**

B) lymphocytes

C) red blood cells

D) neutrophils

Q102). An astronaut after taking one round turn of earth comes to get some examination done before going into space for another thing. Changes in the following?

A) **Bone Mass ↓ Muscle Mass ↓ Urine Ca⁺ ↑ Urine cAMP ↑**

Q103). Ivacaftor-**Lumacaftor** mode of action

A) **increases transport of CFTR proteins to the cell membrane**

Q104). A 3 month old baby asked which neurological process will still be occurring

A) **Myelination**

Q105). We are giving O group which is RH -ve, to a patient with AB group with RH +ve, now there is reaction which of the thing reacted against the patient blood?

A) Anti A

B) Anti B

C) Anti Kell

D) Anti O

E) Anti RH

Q106). Identify the partial agonist curve

Q107). The following histology picture was shown. What is the person deficient in?

<https://www.google.com/url?sa=i&url=https%3A%2F%2Fneuropathology-web.org%2Fchapter10%2Fchapter10cPeroxisomes.html&psig=AOvVaw0QcO1cCjZfo4gmqaErl7LW&ust=1692550985834000&source=images&cd=vfe&opi=89978449&ved=0CBAQjRxqFwoTCMiA4PeZ6YADFQA AAAAdAAAAABAE>

A)peroxisomes

B)endoplasmic reticulum

C)nucleus

D)golgi

Q108). Uworld question where a man presented with unstable angina. Underwent coronary angiography via femoral approach. Stent is placed and the patient is discharged. Presents few days later with livedo reticularis and cyanotic toe I think. What is the diagnosis?

A)Atheroembolic disease

Q109). NSAID exacerbated respiratory disease described in a patient. Patient had chronic sinusitis, and asthma like symptoms. What else would the patient have?

A)nasal polyps

Q110). Posterior urethral injury was described I think. There was a pelvic fracture and blood was present at the meatus. Asked which part had been injured?

A)urethra

B)prostate

C)bladder

D)kidney

Q111). 19 year old girl started college. It has been 6 weeks and the girl doesn't go out to any events or talks to anyone in college. When asked why is that so, she says I want to make friends and go out but I am just scared I will do something embarrassing and then everyone will judge me. What is the most likely diagnosis?

A)Avoidant personality

B)generalized anxiety disorder

C)panic disorder

D)phobia

Q112). Unilateral LMN lesion of the facial nerve. Asked whether the patient has lost both upper face and lower face facial nerve functions or just one part?

A)both lost

Q113). Painless white plaque on the lateral tongue that cannot be scraped off. What is the causative organism?

A)EBV

B)candida

Q114). Hemolytic disease will most likely occur in which combinations?

A)Rh- mother, Rh+ father, Type O mother, Type AB father

Q115). Enterochromaffin like cells were labelled in a gastric pit and asked what the following cells secrete?

Q116). There was some athlete who was participating in a race. Halfway into the race the athlete becomes dizzy and fell. I don't recall any labs or his BP being mentioned. The question asked what did the athlete drink before starting the race?

A)carbonated sodas

B)sports drink

C)water