

**GoldStandard FCPS:**

**Medicine & Allied**

**24April 2019 Afternoon** 

**(Errors and omissions excepted)**

**Cram Statements**

* **acute infection in baby by Eliza method; antibody will be present?
------> Ig M**

IgM antibodies are the first to be produced on exposure

* **AFP raised in?
------> Embryonal carcinoma**

Elevated serum levels of α-fetoprotein (AFP), a fetal serum protein, occur mainly in the development of hepatocellular carcinoma (HCC) or germ cell tumors, mainly yolk sac tumor. ... Serum AFP level is elevated in 75% of yolk sac tumors, 70% of embryonal carcinomas, and 62% of teratomas.

* **Aneuploidy means?------> Variation in cm omosome number**

the condition of having an abnormal number of chromosomes in a haploid set.

* **antibiotics
is present in saliva?
------>Erythromycin**

Erythromycin was excreted into the saliva in a considerable degree (in 60-75% of the serum level) and displayed therapeutical levels for 5-6 hrs, whereas clindamycin and lincomycin reached in the saliva only 25-30% of the serum level and therapeutic levels were maintained only for 3 hours.

* **Basophilia of cell is due to?------> RER**

The outer membrane of the rER is studded with ribosomes. This gives a basophilic staining to cytoplasm in H&E stains (due to the RNA content). The rER plays a major role in protein synthesis. It synthesises secretory proteins, and lysosomal enzymes.

* **binuclear enlarged cells with granules. CD15 and CD30 positive. Diagnosis is?------> Hodgkin lymphoma**

Coexpression of CD30 and CD15 is typically associated with classic Hodgkin's lymphoma (HL).Fever and lymphadenopathy are classical symptoms

 **binuclear enlarged cells with granules. CD15 and CD30 also positive. Diagnosis is?------>Hodgkin lymphoma**

The hallmark of Hodgkin's lymphoma (HL) are mononucleated Hodgkin's cells and multinucleated Reed-Sternberg (HRS) cells, which usually account for only about 1% of cells in the tumor tissue.

* **bleeding from nose. Labs show PT 13s APTT 62s and bleeding time 7min. Diagnosis?------> Intrinsic pathway defect**

Defects in the intrinsic pathway coagulation factors (factors VIII, IX, and XI) are associated with a significant bleeding tendency. The X-linked recessive disorders, hemophilia A (factor VIII) and B (factor IX), are the principal examples of this type of abnormality.

 **Cardiac output of the right side of the heart is what percentage of the cardiac output of the left side of the heart?------>  100%**

* **Clara cells are present in?------>Terminal bronchiole**

Clara cells are cuboidal secretory cells that reside in the bronchioles, functioning to protect the bronchiolar epithelium via secreted substances including Clara cell secretory protein (CCSP)

* **co-factor in synthesis of co enzyme A?------> Pantothenic acid**

Pantothenate is vitamin B5 and is the key precursor for the biosynthesis of coenzyme A (CoA), a universal and essential cofactor involved in a myriad of metabolic reactions, including the synthesis of phospholipids, the synthesis and degradation of fatty acids, and the operation of the tricarboxylic acid cycle.

 **Cushing syndrom should be corrected before surgery?------>Hyperglycemia**

The cortisol, glucose, and electrolytes blood levels must be routinely checked. The replacement of cortisol must continue in the postoperative period, guided by cortisol blood level. The glucose blood level can be maintain within the recommended levels, using insulin regimen or orally drug

* **CXR shows small nodule in the lungs. raised IgE s. Diagnosis is?------> Invasive Aspergillosis**

The gold standard in the diagnosis of IPA is histopathological examination of lung tissue obtained by thoracoscopic or open-lung biopsy [64]. The presence of septate, acute, branching hyphae invading lung tissue along with a culture positive for Aspergillus from the same site is diagnostic of IPA

* **cystic swelling close to labia majora Swelling is most probably?------> Greater vestibular gland**

The Bartholin's glands, also called greater vestibular glands, are two pea-sized glands located at the posterior region of the vaginal opening. The glands have an oval shape with an average size of 0.5 cm and are located lateral to the bulbocavernosus muscle. ... The gland is innervated by the pudendal nerve.

* **Decrease in bile leads to------> Decrease micelle formation**

Bile salts formed in the liver and secreted by the gall bladder allow micelles of fatty acids to form. This allows the absorption of complicated lipids (e.g., lecithin) and lipid-soluble vitamins (A, D, E, and K) within the micelle by the small intestine.

* **During exercise increase, which occurs?------> Increase stroke volume**

Stroke volume increases by about 20–50% in the transition from rest to submaximal exercise.

* **EEG of an anesthetized patient------> Low frequency**

When awake or during light sedation, EEG shows quite small and high frequency (Figure ​ 1A). Electromyogram (EMG) contamination is often observed at this level. Just after loss of response, fast waves with small amplitude still predominate, but their frequency is slower than during wakefulness.

* **example of coronary circulation?------> End to end anastomosis**
* **excess mineralocorticoid in blood will
have?
------>Hypervolemia**

The major effect of mineralocorticoids is the regulation of electrolyte excretion in the kidney. Aldosterone treatment results in increased sodium reabsorption and an increase in excretion of potassium and hydrogen in the renal tubule.

* **Farmer lung disease due to?------> Grain dust**

Farmer's Lung is an allergic disease usually caused by breathing in the dust from moldy hay. However, dust from any moldy crop - straw, corn, silage, grain, or even tobacco - can also cause Farmer's Lung.

* **fever and enlarged Jugulo-digastric lymph node. Diagnosis is?------> Palatine tonsil**

The jugulodigastric lymph nodes, also known as subdigastric lymph nodes, are deep cervical nodes located below the posterior belly of the digastric muscle and anterior to the internal jugular vein. They are located in neck node level IIa and receive lymphatic drainage from the tonsils, pharynx, oral cavity and face.

 **first web space will be first drained by?------>  Infraclavicular lymph node**

Infraclavicular (deltopectoral) group: These nodes are not strictly axillary nodes because they are located outside the axilla. They lie in the groove between the deltoid and pectoralis major muscles and receive superficial lymph vessels from the lateral side of the hand, forearm, and arm.

* **fracture of pelvic bone in RTA y cause of shock is?------> Excessive blood loss**

pelvic bone fracture is associated with 1.5 to 2 L blood loss (B&L)

* **fragmented RBC in peripheral blood ------->anemia**

Red cell fragments are formed when fibrin strands come in contact with circulating red cells. ... Schistocytes can be seen in disseminated intravascular coagulation (DIC), micropathic hemolytic anemia, glomerulonephritis, and hemolytic anemia resulting from mechanical trauma to the red blood cells (such as severe burns).

* **Hip joint is related to?------> Interiorly to obturator externus**

The internal obturator is situated partly within the lesser pelvis, and partly at the back of the hip-joint. It functions to help laterally rotate femur with hip extension and abduct femur with hip flexion, as well as to steady the femoral head in the acetabulum

* **HIV disease monitoring done by------> CD4**

HIV RNA (viral load) and CD4 T lymphocyte (CD4) cell count are the two surrogate markers of antiretroviral treatment (ART) responses and HIV disease progression that have been used for decades to manage and monitor HIV infection. ... Measurement of CD4 count is particularly useful before initiation of ART

 **lost 2L water by sweating and replaced by 2L pure water. What will happen?------>    Decrease ICF osmolarity**

As cell membranes in general are freely permeable to water, the osmolality of the extracellular fluid (ECF) is approximately equal to that of the intracellular fluid (ICF). ... A low serum osmolality will suppress the release of ADH, resulting in decreased water reabsorption and more concentrated plasma

 **manifestation of autoimmune disease is?------>  Arthritis**

Autoimmune arthritis is the name given to a group of arthritis types where a person's immune system attacks itself. The most common example is rheumatoid arthritis. When the immune system attacks itself, the result is inflammation in a joint that can cause pain, stiffness, and mobility problems

* **Medullary thyroid------> Inc calcitonin**

Medullary thyroid cancer is a form of thyroid carcinoma which originates from the parafollicular cells (C cells), which produce the hormone calcitonin.

 **muscles of facial expressions with no bony origin or insertions is?------>  Risorius**

The risorius is a muscle of facial expression which arises in the fascia over the parotid gland and, passing horizontally forward, superficial to the platysma, inserts onto the skin at the angle of the mouth.

* **Orofecal route of transmission?------> Hep E**

Hepatitis A and E are transmitted by the orofecal route, such as contaminated food.

* **peripheral blood findings is associated with lead poisoning?------> Basophilic stippling**

basophilic stippling is not specific for lead toxicity and may be observed in arsenic toxicity, sideroblastic anemia, and thalassemia; the anemia of lead toxicity may be normocytic ...

* **Pin worm infection is caused by?------> Egg ingestion**

Accidentally swallowing or breathing in pinworm eggs causes a pinworm infection. ... Once swallowed, the eggs hatch in the intestines and mature into adult worms within a few weeks. Female pinworms move to the anal area to lay their eggs, which often results in anal itching

* **Post 1/3 of interventricular septum is damaged. Artery involved is?------> Right coronary artery**

The posterior interventricular artery, a branch of right coronary artery, supplies the posterior 1/3 of the interventricular septum. The remaining anterior 2/3 is supplied by the anterior interventricular artery which is a septal branch of the left anterior descending artery, which is a branch of left coronary artery.

 **Post ganglion sympathetic fibers release ACh on muscarinic receptors in tissue------>**The postganglionic connections to sweat glands in the skin and blood vessels supplying skeletal muscle are, however, exceptions; those fibers release ACh onto muscarinic receptors.

* **primary center of ossification at epiphysis of long bone at birth lies in?------> Lower end of femur**

The primary ossification center appears in the middle part of the shaft at week 7 of gestation

* **Pt with respiratory depression not responding to Naloxone. likely cause is?------> Phenobarbitone**

Phenobarbitone causes Agitation, confusion, hyperkinesia, ataxia, CNS depression, nightmares, nervousness, psychiatric disturbance, hallucinations, insomnia, anxiety, dizziness, thinking abnormality. Respiratory system: Hypoventilation, apnea. Cardiovascular system: Bradycardia, hypotension, syncope.

* **Regarding collagen fibres?------> Lightly stain with eosin**

 **renal transplantation, most significant test?
------>HLA**

There are three main blood tests that will determine if a patient and a potential donor are a kidney match. They are blood typing, tissue typing and cross-matching.

* **severe burn develops edema of whole body and blood oozing from capillaries in skin. Cause of edema is?------> Albumin deficiency**

Hypoalbuminemia can be caused by various conditions, including nephrotic syndrome, hepatic cirrhosis, heart failure, and malnutrition; however, most cases of hypoalbuminemia are caused by acute and chronic inflammatory responses. Serum albumin level is an important prognostic indicator.

* **shift the Hb 02 curve to the right?------> Increase H+**

decrease in pH (increase in H+ ion concentration) shifts the standard curve to the right, while an increase shifts it to the left. ... The T state has a lower affinity for oxygen than the R state, so with increased acidity, the hemoglobin binds less O2 for a given PO2 (and more H+). This is known as the Bohr effect

 **smooth muscles:------>  Has layers of circular and longitudinal muscle**

The three layers of smooth muscle consist of the outer longitudinal, the middle circular, and the inner oblique muscles.

* **structure lies anterior to thoracic part of trachea?------> Aortic arch**

The aortic arch, arch of the aorta, or transverse aortic arch (English: /eɪˈɔːrtɪk/) is the part of the aorta between the ascending and descending aorta. The arch travels backward, so that it ultimately runs to the left of the trachea.

* **systemic factor is responsible for poor wound healing?------> Diabetes**

The factors discussed include oxygenation, infection, age and sex hormones, stress, diabetes, obesity, medications, alcoholism, smoking, and nutrition. A better understanding of the influence of these factors on repair may lead to therapeutics that improve wound healing and resolve impaired wounds.

* **unable to thrive withrespiratory infection. Best Test?------> Sweat chlorice test**

Sweat test for high sweat chloride to see if you have high levels of chloride in your sweat. The sweat test is the standard test for diagnosing cystic fibrosis as recurrent sinusitis are diarrhea are indicators of cystic fibrosis

* **Vit D3:------> Animal origin**

The two forms of vitamin D differ depending on their food sources. Vitamin D3 is only found in animal-sourced foods, whereas D2 mainly comes from plant sources and fortified foods. Since vitamin D2 is cheaper to produce, it's the most common form in fortified foods.

* **. Blood supply to the upper 1/3 of the esophagus is from?------> Inferior thyroid artery**

The blood supply to the esophagus can roughly be divided into thirds, with anastamoses between each area of supply. More specifically, it can refer to: Esophageal branches of inferior thyroid artery (top third) Esophageal branches of thoracic part of aorta (middle third)

* **.ln primary dehydration, what occurs?------>Hypertonic ECF**

Hypertonic dehydration occurs when water excretion from the body exceeds that of sodium excretion, resulting in an increased sodium concentration in the extracellular fluid (hypernatremia

* **35. A pregnant on 5th month . Which anti-thyroid drug should be given?
------>Methimazole**

Both methimazole (MMI) and propylthiouracil (PTU) may be used during pregnancy; however, PTU is preferred in the first trimester and should be replaced by MMI after this trimester.

* **80% 02 is present in which part of the fetal circulation?------> Umbilical vein**

Blood from the placenta passes back to the fetus through the umbilical vein, which has an oxygen saturation of approximately 80% compared with the 98% saturation in the arterial circulation of the adult.

**A pregnant woman painful swelling in the right leg. Cause?------>  DVT**

Risk factors include age, bed rest, congestive heart failure, estrogen, family history, hematologic cancers, immobility, indwelling catheters, long-distance travel, major trauma, noninfectious inflammatory conditions, obesity, pregnancy (and postpartum status), prior venous thromboembolism (VTE), recent surgery, .

* **access the compliance of patient therapy?------>Patient perception of severity of disease and effects after i iot using the drug**
* **Anaphylactic shock differs from hypovolemic shock by?------> Increase cardiac output**

**Anterior 2/3 taste sensation of tongue are supplied by ------>Facial**

Anterior two thirds of tongue (anterior to the vallate papillae): Taste: chorda tympani branch of the facial nerve (CN VII) via special visceral afferent fibers. Sensation: lingual branch of the mandibular (V3) division of the trigeminal nerve (CN V) via general visceral afferent fibers.

* **anti-psychotics complains of a dry mouth, constipation, blurred vision, urinary retention and feeling tired. drug responsible?------>Chlorpromaz ne**

Extrapyramidal reactions (e.g., Parkinson-like symptoms, dystonia, akathisia, tardive dyskinesia), drowsiness, dizziness, skin reactions or rash, dry mouth, orthostatic hypotension, amenorrhea, galactorrhea, weight gain.

* **Aortic receptors bring BP to normal due to------> Increase pCO2 in arterial blood**

Peripheral chemoreceptors are extensions of the peripheral nervous system that respond to changes in blood molecule concentrations (such as oxygen or carbon dioxide) and help maintain cardiorespiratory homeostasis.

* **AP of stimulating nerve trunk (depolarization) is?------> Compound action potential**

The CMAP idealizes the summation of a group of almost simultaneous action potentials from several muscle fibers in the same area. These are usually evoked by stimulation of the motor nerve

* **Appendicular artery is terminal branch of?------> Ileocolic artery**

The appendicular artery is a branch of the ileal or posterior cecal branch of the ileocolic artery, which is from the superior mesenteric artery. It courses posteriorly to the terminal ileum in the free wall of the mesoappendix to supply the appendix.

* **astest nerve conduction occurs in?------> A Alpha**

These fibers are the thickest and fastest conducting. They are myelinated. They have a diameter of 1.5-20 micron. Their speed of conduction is 4-120 m/sec, which shows that they have a really fast conduction of impulse.

* **autosomal dominant disorder?------> Hereditary spherocytosis**

A pattern of inheritance in which an affected individual has one copy of a mutant gene and one normal gene on a pair of autosomal chromosomes. .

* **bilateral hilar lymphadenopathy. Biopsy granuloma with granulomatous necrosis . Diagnosis is?------> Sarcoidosis**

sarcoidosis is a disease marked by an over-active immune system that leads to the formation of small clumps of inflammatory cells called granulomas in different tissues and organs, affecting how well they work. Over time, granulomas can become calcified or bone-like, and cause permanent damage.

**blood shows clusters of gram +ve cocci. DOC for this organism is?
------>  Vancomycin**

Vancomycin, a useful bactericidal antibiotic for selective clinical infections, is the therapy of choice for serious staphylococcal infections when the penicillins and cephalosporins cannot be used. The antibacterial spectrum of vancomycin also covers other gram-positive cocci and bacteria and gram-negative cocci.

* **branch of renal artery supplies the network around glomerulus?------> Interlobular artery**

Each arcuate artery supplies several interlobular arteries that feed into the afferent arterioles that supply the glomeruli. After filtration occurs, the blood moves through a small network of venules that converge into interlobular veins.

**cause of edema in patient with heart failure?------>  Increase hydrostatic pressure**

The most common cause of edema in patients with cardiovascular disorders is heart failure. ... This elevates venous pressures and capillary hydrostatic pressures, which can lead to edema especially in the feet and legs.

* **CD in immunology stand for?------> Cluster of differentiation**

The cluster of differentiation (also known as cluster of designation or classification determinant and often abbreviated as CD) is a protocol used for the identification and investigation of cell surface molecules providing targets for immunophenotyping of cells

* **chromosome breakage syndrome means?------> Defective DNA repair**

Chromosomal breakage syndromes are a group of genetic disorders that are typically transmitted in an autosomal recessive mode of inheritance. ... The disorders are characterized by a defect in DNA repair mechanisms or genomic instability, and patients with these disorders show increased predisposition to cancer

* **cloudiness in front of eye. Diagnosis?------> Cataract**

Cataract is considered a major cause of visual impairment in diabetic patients as the incidence and progression of cataract is elevated in patients with diabetes mellitus [5, 6]. ... Due to increasing numbers of type 1 and type 2 diabetics worldwide, the incidence of diabetic cataracts steadily rises.

**condition that occurs in IV drug abuser?------>**One of the most common dreaded infections associated with intravenous drug abuse is Methicillin-Resistance S. aureus (MRSA), which is a serious skin infection with a complex treatment regimen due to significant antibiotic resistance.

* **Daily requirement of protein ------>1g**

The DRI (Dietary Reference Intake) is 0.8 grams of protein per kilogram of body weight, or 0.36 grams per pound. This amounts to: 56 grams per day for the average sedentary man. 46 grams per day for the average sedentary woman.

* **diabetic male complains dyspepsia. DOC------> Prokinetics metoclopramide**

Thus, recognizing gastroparesis is critical to the management of GERD and diabetes. Promotility agents, such as metoclopramide and domperidone, have been used with proton pump inhibitors (PPIs) to treat patients who have GERD symptoms and gastroparesis

* **diphtheria toxoid vaccination. type of reaction has occurred?------> Type 3**

Type III hypersensitivity occurs when there is accumulation of immune complexes (antigen-antibody complexes) that have not been adequately cleared by innate immune cells, giving rise to an inflammatory response and attraction of leukocytes. Such reactions may progress to immune complex diseases.

* **diuretic causes hyperkalemia?------> Spironolactone**

Acute overdosage of ALDACTONE may be manifested by drowsiness, mental confusion, maculopapular or erythematous rash, nausea, vomiting, dizziness, or diarrhea. Rarely, instances of hyponatremia, hyperkalemia, or hepatic coma may occur in patients with severe liver disease, but these are unlikely due to acute overdosage.

* **DOC for Taenia Solium pork worm infestation------> Praziquantel**

praziquantel increases the permeability of the membranes of schistosome cells towards calcium ions. The drug thereby induces contraction of the parasites, resulting in paralysis in the contracted state.

* **drugs with short half- lives?------> Reach steady state early**
* **During heavy exercise, ------> Increase in ventricular contractility**

cardiac output is increased during excercise beacuse of increased muscle pump, force of ventricular contraction and sympathetic stimulation

* **emergency with acute left heart failure. ------> IV Furosemide**

Vasodilators and diuretics are the most important medical therapies that can be given in acute decompensated HF.

* **eyes moving opposite to the subject of focus in conjugate gaze will have a lesion at?------> Frontal eye field**

Conjugate gaze palsies are neurological disorders affecting the ability to move both eyes in the same direction. These palsies can affect gaze in a horizontal, upward, or downward direction. These entities overlap with ophthalmoparesis and ophthalmoplegia.

* **feature of Polyarthritis nodosa?------> Fibrinoid necrosis**

Polyarteritis nodosa (PAN) is a vasculitis characterized by fibrinoid necrosis of small to medium sized arteries associated with immune complex deposition in the vessel walls which may result in thrombosis or aneurysm formation in any organ of the body

* **Flexor reflex occurs due to?------> Noxious stimulus**

The flexor reflex, which removes a limb from a noxious stimulus, has a minimum of two interneurons and three synapses. The flexor and extensor reflexes are only two examples of the sequential ordering of muscular contraction and relaxation.

**From the baso-lateral membrane of renal epithelium, sodium is absorbed by?------>Na-K pump**

Located on the basolateral aspect of tubule cells, renal Na-K-ATPase plays a key role in the active translocation of Na and K across this membrane as well as in the "secondary active" transport of a number of other solutes

* **Gastric emptying is delayed by?------> CCK**

The higher dose of CCK achieved plasma levels of 8 pM and resulted in a delay in gastric emptying that was similar to that seen with the mixed meal. Since exogenous CCK at concentrations which occur postprandially delays gastric emptying, we conclude that CCK is a physiologic regulator of gastric emptying.

* **Grading of a tumor shows?------> Differentiation**

In pathology, grading is a measure of the cell appearance in tumors and other neoplasms. ... The grade score (numerical: G1 up to G4) increases with the lack of cellular differentiation - it reflects how much the tumor cells differ from the cells of the normal tissue they have originated from

* **hematoma in nape of neck. part of cranial fossa damaged?------> Posterior**

Battle's sign – bruising of the mastoid process of the temporal bone.

* **Hematopoietic cell, does not contain any marker of differentiation?------>CD 34**

Hematopoietic Stem Cell and Differentiation Markers. Hematopoietic stem cells (HSCs) develop from hemangioblasts within the mesoderm. ... Cells that differentiate into lymphocytes, such as B Cells and T Cells, can be identified by detecting increased expression MS4A1/CD20 and CD4, respectively

* **hematopoietic stem cells in Myelocytic stage?------> Staining of granules**

During myelopoiesis in bone marrow, the first granules form at about the promyelocyte stage, stain blue with the Wright or Romanowsky stain, and are called primary granules or azurophilic granules. Their formation ceases at the myelocyte stage, and they are distributed among the daughter cells

* **Hemiballismus result from lesion in?------> Sub thalamic nucleus**

A tumor or an infarct in the striatum (caudate or putamen) can cause acute unilateral chorea (hemichorea). ... Hemiballismus is caused by a lesion, usually an infarct, in or around the contralateral subthalamic nucleus. Although disabling, hemiballismus is usually self-limited, lasting 6 to 8 wk.

* **Heparin is monitored by ------> aPTT**

The most widely used laboratory assay for monitoring unfractionated heparin therapy is the activated partial thromboplastin time (aPTT).

**high altitude will have------>  Secondary polycythemia**

Secondary polycythemia is the overproduction of red blood cells. ... Red blood cells are constantly being manufactured in your bone marrow. If you move to a higher altitude where oxygen is rarer, your body will sense this and begin to produce more red blood cells after a few weeks

* **Highest pulse pressure is in?------> Femoral artery**
* **hormone of the anterior pituitary is under direct inhibitory control of hypothalamus?------> Prolactin**

Dopamine serves as the major prolactin-inhibiting factor or brake on prolactin secretion. Dopamine is secreted into portal blood by hypothalamic neurons, binds to receptors on lactotrophs, and inhibits both the synthesis and secretion of prolactin.

* **Hutchinson teeth which is centrally notched teeth and Gumma in mouth. Cause?------>Treponema spirochetes**

If left untreated, the classic stigmata of Hutchinson teeth, saddle nose, interstitial keratitis, saber shins, cognitive impairment, hearing loss, and hydrocephalus develop

* **If the heart rate is 70 beats/min, then the cardiac output of ventricle is------> 5.25 L/min**

Cardiac output is calculated by multiplying the stroke volume by the heart rate. Stroke volume is determined by preload, contractility, and afterload. The normal range for cardiac output is about 4 to 8 L/min, but it can vary depending on the body's metabolic needs

**ileum is resected. vitamin should be given ------>Vit B12**

Retention of terminal ileum tends to preserve vitamin B12 absorption capacity. Thus, if more than 60 cm of terminal ileum is removed, fat and B12 malabsorption are likely. The Schilling test is an indicator of the degree of terminal ileal dysfunction

* **In Conductive deafness, the affected side shows?------> Weber lateralized to it**

Conductive hearing loss is confirmed in the weaker ear if bone conduction is greater than air conduction and the Weber test lateralizes to that side. Combined hearing loss is likely if the Weber test lateralizes to the stronger ear and bone conduction is greater than air conduction in the weaker ear.

* **in Erythroblastosis fetalis. Baby dies 6 hours later. At biopsy?------> Basal ganglia staining**

repeated intrauterine intravascular transfusion for treatment of erythroblastosis and who later developed calcification in the thalamus and the basal ganglia.

* **in hypertention. Autopsy of the heart ------> Hypertrophy**

Left ventricular hypertrophy can occur when some factor makes your heart work harder than normal to pump blood to your body. Factors that can cause your heart to work harder include: High blood pressure (hypertension). This is the most common cause of left ventricular hypertrophy

* **Increased specific gravity of urine, deranged is------> Concentration**

Abnormal specific gravity results could indicate: excess substances in the blood. kidney disease (high or low specific gravity can indicate an inability of the kidney tubules to function correctly) infection, such as a urinary tract infection

* **irreversible cell injury most imp is?------> Rupture of lysosomal and release of lysosomal enzymes**

 If membranes, particularly membranes of the lysosome and outer cell membrane are damaged, then enzymes within the lysosome can completely destroy the cell, or ECF contents can destroy the cell and disrupt calcium homeostasis.

* **Lesion in anterior cerebral artery leads to loss of?------> Sensory loss**

Anterior cerebral artery syndrome refers to symptoms that follow a stroke occurring in the area normally supplied by one of the arteries. It is characterized by weakness and sensory loss in the lower leg and foot opposite to the lesion and behavioral changes.

* **Lesion in post central gyrus leads to?------> Asterognosia**

Damage to the postcentral gyrus of the parietal lobe, the dorsal columns, or the dorsal root ganglion may produce a loss of proprioception, astereognosis, loss of vibratory sense, and loss of two-point discrimination in the trunk or extremities.

**Limb buds appear during week?------>    4**

Much of the initial growth and patterning of the limbs occurs during weeks 4 – 8. Limb buds appear at about 4 weeks and much of the basic structures of the limbs (bones and muscle groups) are established by 8 weeks. After 8 weeks, the limb elements then just increase in size

* **Location of geniculate ganglion?------> Medial wall of middle ear**

Superior to the promontory on the medial wall of the middle ear, the nerve expands to form the geniculate ganglion , which contains the sensory ganglion cells of origin of its taste fibers.

* **lost fine touch vibration and proprioception Lesion is in?------> Nucleus gracilis**

he gracile nucleus situates in the midline dorsal medulla at the junction of the brainstem and the spinal cord. The gracile fasciculus which carries sensory input from vertebral level T6 and below ascends into the gracile nucleus to form the gracile tubercle.

* **Loud S1, opening snap and mid diastolic rumbling murmur at apex are characteristic finding of?------> Mitral stenosis**

The opening snap (OS) of the mitral stenosis is a high-pitched early diastolic sound due to sudden tensing of the valve leaflets and subvalvular apparatus at the end of the opening excursion. The OS occurs 40-120 milliseconds after A2. The A2-OS interval varies inversely with the severity of mitral stenosis

* **manifestation of penicillin hypersensitivity is------> Bronchospasm**

The acute allergic reaction arises immediately or rapidly within minutes to an hour or two and includes sudden anaphylaxis with hypotension, bronchospasm, angioedema and urticaria. ... The sub-acute reaction is caused by preformed IgG to penicillin as a result of previous penicillin treatment.

**medial branch of external carotid artery is?------>Ascending pharyngeal artery**

Ascending pharyngeal artery is the only medial branch of external carotid artery. Maxillary artery and superficial temporal artery are the terminal branches.

* **Metastasis occurs due to?------> Degradation of E-cadherin**

As the loss of E-cadherin, a well-known inhibitor of invasion, increases the invasive potential of cells, the weakening of E-cadherin-mediated adherens junctions by a microenvironment with high levels of 90K may be a part of a mechanism for cancer metastasis

* **method to measure GFR is?------> Inulin clearance**

Inulin and its analog sinistrin are used to help measure kidney function by determining the glomerular filtration rate (GFR), which is the volume of fluid filtered from the renal (kidney) glomerular capillaries into the Bowman's capsule per unit time

**Mid trimester RBCS are produced from?
------>Liver**

The production of RBCs in the fetal liver increases until the 2nd trimester when the rate of synthesis begins to decline as erythropoiesis increases in the bone marrow. RBCs are still produced in the liver for approximately 1 week after birth

**MOA by which aspirin decreases pain is?------>  Decreasing prostaglandin**

The mechanism of action of aspirin. ... He proved that aspirin and other non-steroid anti-inflammatory drugs (NSAIDs) inhibit the activity of the enzyme now called cyclooxygenase (COX) which leads to the formation of prostaglandins (PGs) that cause inflammation, swelling, pain and fever

**MOA of acetazolamide is?------>  Decreases hydrogen secretion and increase excretion of Na and K**

carbonic anhydrase inhibitor that reduces formation of hydrogen and bicarbonate ions from carbon dioxide and water by inhibiting, in proximal renal tubule, the enzyme carbonic anhydrase, thereby promoting renal excretion of sodium, potassium, bicarbonate, and water.

* **Most abundant glial cells in gray matter?------> Protoplasmic astrocytes**

In addition to providing support for neurons, glial cells aid in the maintenance of homeostasis, and form myelin. As a whole, glial cells are the most abundant cells in the central nervous system. The most notable glial cells include oligodendrocytes, Schwann cells, astrocytes, microglia, and ependymal cells

* **multiple rib fractures. abdomen is moving more during breathing. Muscle ?------> External intercostal**

The external intercostal muscles are responsible for forced and quiet inhalation. They raise the ribs and expand the chest cavity, and originate from ribs one through 11, with insertion from ribs two to 12. The internal intercostal muscles are responsible for forced exhalation.

* **Myasthenia gravis shows type of hypersensitivity?------> Type 2**

Myasthenia gravis is an autoimmune disease that's categorized as a type II hypersensitivity that involves autoantibodies binding acetylcholine receptors on skeletal muscle cells

* **Neck infection in front of Pretracheal fascia will spread to?------> Anterior mediastinum**

This layer of the deep cervical fascia is a collar of fascia surrounding the whole neck and contains the trapezius and sternocleidomastoid muscles. ... Inferiorly, the investing layer attaches to the manubrium of sternum, spine of the scapular, acromion of scapular and the clavicles.

* **Negative free water loss occurs in?------> SIADH**

A positive electrolyte-free water clearance denotes the excretion of excess free water. A negative electrolyte-free water clearance indicates reabsorption of excess free water. ... With diminished ADH secretion and normal renal function, a substantial volume of free water is cleared in response to hypotonic stimuli.

* **Oogonia starts mitosis-1 during which phase?------> 2-6th month prenatal**

By 20–24 weeks of gestation, the number of oogonia has peaked at about 7 million. Beginning at 8 or 9 weeks of gestation, some of these oogonia enter into the prophase of meiosis I to become primary oocytes and they arrest at this stage due to inhibitory hormones.

* **pain of small intestine is felt at?------> Umbilicus**

Bloating with belly button pain can also be caused by appendicitis. This condition occurs when the appendix becomes infected and then inflamed. The appendix is part of the large intestine, which is why the pain is near the belly button

* **Pancreatic trypsinogen enzyme converted to active form trypsin by------> Enterokinase**

Enteropeptidase (also called enterokinase) is an enzyme produced by cells of the duodenum and is involved in digestion in humans and other animals. Enteropeptidase converts trypsinogen (a zymogen) into its active form trypsin, resulting in the subsequent activation of pancreatic digestive enzymes.

* **parapneumonic effusion. Lab will be?------> Protein 3.5g/dL**

While no diagnostic serum laboratory tests are available for a parapneumonic effusion, serum total protein and lactic dehydrogenase (LDH) levels should be obtained to help characterize whether the pleural fluid is an exudate or transudate.

* **Passive immunity is achieved by?------> IV immunoglobulin**

Passive immunization is achieved by administration of antibodies, resulting in short term protection. ... Passive immunization is required by patients with immune defects like agammaglobulinemia, who receive intravenous polyclonal immunoglobulin (IVIG) to prevent infections.

**phagocytic cell which presents antigen to lymphocytes
------>Monocytes/macrophages**

In humans, and in vertebrates generally, the most-effective phagocytic cells are two kinds of white blood cells: the macrophages (large phagocytic cells) and the neutrophils (a type of granulocyte).

* **pharyngeal phase of swallowing:------> Vocal cord moves approximate**

As the food bolus reaches the pharynx, special sensory nerves activate the involuntary phase of swallowing. ... A critical part of the pharyngeal phase is the involuntary closure of the larynx by the epiglottis and vocal cords, and the temporary inhibition of breathing

* **pregnant female present with biliary colic. Enzyme most likely raised will be?------> GGT**

Elevated levels may be due to liver diseases, such as hepatitis or cirrhosis, but they may also be due to other conditions, such as congestive heart failure, diabetes, or pancreatitis. They may also be caused by alcohol abuse or use of drugs that are toxic to the live

* **pre-requisite for renal transplantation?
------>HLA matching**

When the immune system of the recipient recognizes the transplanted kidney as a foreign object, graft rejection occurs. As part of the host immune defense mechanism, human leukocyte antigen (HLA) is a major challenge for graft rejection in transplantation therapy.

**pt complains of paralysis of orbicularis oris. nerve is ------>Mandibular branch of facial nerve**

The orbicularis oris is innervated by the buccal branch of cranial nerve VII, which is also known as the Facial nerve. This muscle functions to purse, pucker, and/or close the lips, which helps a person to forcefully exhale such as when playing a wind instrument.

**Pt with severe vomiting Labs showed hypochloremia, hyponatremia and hypokalemia.. What is the diagnosis?
------>Metabolic alkalosis**

Vomiting or nasogastric (NG) suction generates metabolic alkalosis by the loss of gastric secretions, which are rich in hydrochloric acid (HCl). ... Administration of sodium bicarbonate in amounts that exceed the capacity of the kidneys to excrete this excess bicarbonate may cause metabolic alkalosis

* **Regarding Aplasia------>Failure of cell production**

Aplastic anemia is an autoimmune disease in which the body fails to produce blood cells in sufficient numbers.

**Regarding Atherosclerosis:------>  Due to internal plaque**

Atherosclerosis is a disease in which plaque builds up inside your arteries. ... Over time, plaque hardens and narrows your arteries. This limits the flow of oxygen-rich blood to your organs and other parts of your body. Atherosclerosis can lead to serious problems, including heart attack, stroke, or even death.

* **Regarding Bioavailability:------> The amount of active drug reaching bloca**

the proportion of a drug or other substance which enters the circulation when introduced into the body and so is able to have an active effect.

* **Regarding compact bone:------> Circumferential lamella form osteon**

Each osteon consists of concentric layers, or lamellae, of compact bone tissue that surround a central canal, the haversian canal. ... Near the surface of the compact bone, the lamellae are arranged parallel to the surface; these are called circumferential lamellae.

* **Regarding Hemophilia------> Intrinsic pathway defect**

Defects in the intrinsic pathway coagulation factors (factors VIII, IX, and XI) are associated with a significant bleeding tendency. The X-linked recessive disorders, hemophilia A (factor VIII) and B (factor IX), are the principal examples of this type of abnormality.

* **Regarding Synchondrosis ------> In between the joining bone there is plate of hyaline cartilage**

synchondrosis: A slightly moveable articulation between bones joined by hyaline cartilage.

* **Renin in the circulation originates mainly from?------> Juxtaglomerular cells**

Renin is secreted from juxtaglomerular kidney cells, which sense changes in renal perfusion pressure, via stretch receptors in the vascular walls.

* **Rightgastric artery is a branch of?
------>Hepatic artery**

The right gastric artery arises, in most cases (53% of cases), from the proper hepatic artery, descends to the pyloric end of the stomach, and passes from right to left along its lesser curvature, supplying it with branches, and anastomosing with the left gastric artery.

* **Role of testosterone during puberty is?------> Thickening of laryngeal cartilage and deepening of voice**

During puberty, testosterone is responsible for the development of male attributes like a deeper voice, beard, and body hair. It also promotes muscle mass and sex drive. Testosterone production surges during adolescence and peaks in the late teens or early 20s

* **shows metaplasia?------> Vit A deficiency**

It is suggested that vitamin A suppresses TGase 1 expression in normal vocal folds to inhibit keratinization, and that the TGase 1 up-regulation caused by vitamin A deficiency may be related to the formation of metaplasia in the laryngeal epithelium.

* **spinal cord lesion at C7:------> Contralateral loss of pain and temperature below lesion**

 Hemisection of the spinal cord results in the distinctive syndrome of ipsilateral paralysis and contralateral pain and temperature loss below the level of the lesion,

**stage of sleep do theta waves appear on EEG------>**Theta waves occur during stages 1 and 2 and are slower in frequency and greater in amplitude than alpha waves. As a person moves from N1 to N2 sleep, theta wave activity continues; every few minutes, sleep spindles (sudden increase in wave frequency) and K-complexes (sudden increase in wave amplitude) occur.

* **Statistical sequence of p value for cut off?------> Less than 0.05**

In the majority of analyses, an alpha of 0.05 is used as the cutoff for significance. If the p-value is less than 0.05, we reject the null hypothesis that there's no difference between the means and conclude that a significant difference does exist.

* **Stimulation of sympathetic causes?------> Constrict Gl sphincter**

general, sympathetic stimulation causes inhibition of gastrointestinal secretion and motor activity, and contraction of gastrointestinal sphincters and blood vessels. Conversely, parasympathetic stimuli typically stimulate these digestive activities.

* **Supply of blood to parathyroid is from?------> Superior and Inferior Thyroid Artery**

The parathyroid glands receive their blood supply from branches of the inferior thyroid arteries, which arise from the subclavian arteries.

* **Surfactant are secreted by?------> Type II pneuinocytes**

Surfactant is a macroaggregate molecule secreted by type 2 pneumocytes as the infant approaches term gestation.

* **taking diet rich in proteins and carbohydrates but deficient in fruits and vegetables. Reason for poor wound healing is?------> Decrease Collagen tensile strength**

Collagen forms a scaffold to provide strength and structure. ... need to be surgically removed after the main operation.

* **Test cose of Edrophonium relievos symptoms. Next ?------> Increase Neostigmine dose**

Neostigmine works by slowing the breakdown of acetylcholine when it is released from nerve endings. This means that there is more acetylcholine available to attach to the muscle receptors and this improves the strength of your muscles

**The body will response to hypothelamic high temperature setpoint------>Sweating**

When your hypothalamus senses that you're too hot, it sends signals to your sweat glands to make you sweat and cool you off. When the hypothalamus senses that you're too cold, it sends signals to your muscles that make your shiver and create warmth. This is called maintaining homeostasis

* **The supporting cells in pars nervosa are?------> Pituicytes**

Nerve fibers fill most of the pars nervosa but they are not easily identifiable without special stains. Note that the main cell type here is a glial or supporting cell called a pituicyte . The bulk of the pars nervosa consists of axons from neurons in the supraoptic and paraventricular nuclei of the hypothalamus.

* **Thiamine deficiency causes?------> Poly neuropcitliy**

Neuropathy due to thiamine deficiency has many presentations, including length-dependent sensorimotor, cranial nerve, and motor-predominant polyneuropathy, all of which may precede cognitive and systemic symptoms.

* **Thirst is stimulated in activation of renin angiotensin system due to?------> Angiotensin 2**

Angiotensin (ANG) II is a powerful and phylogenetically widespread stimulus to thirst and sodium appetite. When it is injected directly into sensitive areas of the brain, it causes an immediate increase in water intake followed by a slower increase in NaCl intake.

* **Thromboxane A2 is secreted by?------> Platelets**

Thromboxane A2 (TXA2) is a type of thromboxane that is produced by activated platelets during hemostasis and has prothrombotic properties: it stimulates activation of new platelets as well as increases platelet aggregation.

* **Transformation of macrophages to epithelioid cell is due to------> Interferon gamma**

Macrophages can be activated by cytokines such as interferon-gamma (IFN-gamma) and bacterial endotoxins, such as lipopolysaccharide (LPS). Activated macrophages undergo many changes which allow them to kill invading bacteria or infected cells and changes into epithelioid cells

**Tumor marker of adenocarcinoma
of colon?
------>CEA**

Carcinoembryonic antigen (CEA) level is the tumor marker most often used in colorectal cancer. This level can be checked prior to surgery to predict prognosis, can be used during therapy to assess response to treatment or after completion of therapy to monitor for recurrence

* **Tumor marker of Astrocytoma is?------> GFAP**

.The glial fibrillary acidic protein (GFAP) is a classical marker of astrocytoma, both in clinical and experimental settings. GFAP is used to determine glial differentiation, which is associated with a less malignant tumor.

**Tumor marker of breast carcinoma?------>Ca 15-3**

The most widely used serum markers in breast cancer are CA 15-3 and carcinoembryonic antigen (CEA). ... As CA 15-3 is the most widely used serum marker in breast cancer, most of the review will focus on it. Malignancies in which serum tumor markers play an important role in patient management.

**Tumor marker of ovarian carcinoma?------>    Ca 125**

CA125, the glycoprotein defined by the antibody OC 125, is the most important clinical marker for the diagnosis, treatment and follow-up of epithelial ovarian cancer. However, like most tumor markers, it is neither wholly specific nor sensitive for the disease.

* **Turner syndrome------> 45X0**

People typically have two sex chromosomes in each cell: females have two X chromosomes, while males have one X chromosome and one Y chromosome. Turner syndrome results when one normal X chromosome is present in a female's cells and the other sex chromosome is missing or structurally altered

* **unable to distinguish between red and green colour. The defect is?------> Protanopia**

Protanopia (1% of males): Lacking the red cones for long-wavelength sensitive retinal cones, those with this condition are unable to distinguish between colors in the green–yellow–red section of the spectrum. ... This is a rare form of color blindness.

**unable to extend his metacarpophalangeal joint, abduct and extend his thumb nerve is damaged------>  Radial nerve**

The radial nerve is a nerve in the human body that supplies the posterior portion of the upper limb. It innervates the medial and lateral heads of the triceps brachii muscle of the arm, as well as all 12 muscles in the posterior osteofascial compartment of the forearm and the associated joints and overlying skin.

* **vascular layer lies over Chorion enrich in lipids and glycogen?------> Decidua basals**

Indirect methods include patient questionnaires, patient self reports, pill counts, rates of prescription refills, assessment of patient's clinical response, electronic medication monitors, measurement of physiologic markers, as well as patient diaries.

* **ventricular extra systole, the next normal ventricular contraction that occur after extra systole would produce?
------> Increase pulse pressure due to increase in contractility of ventricle**
* **Voluntary inhibition of micturition is by?------> Increase firing in pudendal nerve**

The requirement for voluntary control over the lower urinary tract necessitates complex interactions between autonomic (mediated by sympathetic and parasympathetic nerves) and somatic (mediated by pudendal nerves) efferent pathways1,2 (FIG. 1a). The sympathetic innervation arises in the thoracolumbar outflow of the spinal cord, whereas the parasympathetic and somatic innervation originates in the sacral segments of the spinal cord

* **Vomiting centre is located in?------> Medulla Oblongata**

by two distinct brain centres—the vomiting centre and the chemoreceptor trigger zone—both located in the medulla oblongata. The vomiting centre initiates and controls the act of emesis, which involves a series of contractions of the smooth muscles lining the digestive tract.

**weakness of left flexor halluces longus and diminished ankle jerk. Compression of ------>  S1 nerve root**

Numbness for the S1 nerve runs on the outside of the foot. The S1 nerve root also supplies innervation for the ankle jerk (tap on the achilles tendon and the foot goes down), and a loss of this reflex indicates S1 impingement, although it does not create loss of function.

* **welling at the angle of mandible, fever, nausea and painful testis. Diagnosis?------> Mumps**

Mumps is a viral disease caused by the mumps virus. Initial signs and symptoms often include fever, muscle pain, headache, poor appetite, and feeling generally unwell. This is then usually followed by painful swelling of one or both parotid salivary glands.

* **young sexually active male presented with UTI. likely organism involved is?------> Chlamydia**

Presentation of chlamydia includes cloudy discharge from the tip of the penis, painful urination, burning and itching around the opening of the penis and pain and swelling around the testicles

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