

**GoldStandard FCPS:**

**Medicine & Allied**

**19th November 2019 Afternoon**



**Medicine & Allied 19th Afternoon 2019 Night**

**(Errors and omissions excepted)**

**Cram Statements**

**FcpsWorld Golden Notes are also AVAILABLE IN BOOK SHOPS**

* **Undescended testes are associated with---------->Neoplasia**

Undescended testes are associated with reduced fertility, increased risk of testicular germ-cell tumors, and psychological problems when the boy is grown

* **The most common complication of IUCD is---------->Irregular vaginal bleed**

Abnormal uterine bleeding is the most common complication of IUD use.

* **part of basal ganglia?---------->Caudate nucleus**

The main components of the basal ganglia – as defined functionally – are the striatum; both dorsal striatum (caudate nucleus and putamen) and ventral striatum (nucleus accumbens and olfactory tubercle), globus pallidus, ventral pallidum, substantia nigra, and subthalamic nucleus

* **ATT cause red organge urine---------->Rifampicin**

Rifampicin will cause a pinkish/orange discolouration of your urine, saliva and sweat. This side effect is harmless so you should not be concerned

* **alcoholic liver disease characteristic----------> Mallory bodies**

Mallory bodies. These cytoplasmic bodies are eosinophilic and formed from aggregates of intermediate filaments, such as cytokeratin, within the hepatocytic cytoplasm as seen here in a case of alcoholic liver disease.

* **In CLD bleeding occurs from Varices by---------->Left Gastric Vein**

The lower one third of the esophagus is drained into the superficial veins lining the esophageal mucosa, which drain into the left gastric vein, which in turn drains directly into the portal vein. These superficial veins (normally only approximately 1 mm in diameter) become distended up to 1–2 cm in diameter in association with portal hypertension.

* **Similarity between Cardiac andSkeletal muscle is?---------->Transverse striations**

cardiac muscle appears striated like the skeletal muscle due to arrangement of contractile proteins. It also has several unique structural characteristics: The fibers of cardiac muscle are not arranged in a simple parallel fashion. ... Cardiac muscle fibers are long cylindrical cells with one or two nuclei.

* **Nerve supply to adrenal medulla isfrom? ---------->Greater thoracic splanchnicnerve**

The adrenal glands are innervated by the coeliac plexus and greater splanchnic splanchnic nerves

* **segment representcomplete ventricular systole onECG? ---------->ST segment**

[Ventricular depolarization/ongoing systole 👉 QRS complex][Complete ventricular systole 👉 ST segment][If asked about what segment shows ventricular systole 👉 ST segment] .. QRS isn't called a segment, that's a complex.

* **Absent P waves on ECG occurs in?----------> Nodal rhythm**

electrical activation originates at or near the AV node, the P wave is frequently not seen; it can be buried within the QRS complex,

* **keeps an   
  balance between calcium and  
  phosphate is? ---------->PTH**

Calcium and phosphate are both regulated through the actions of three hormones: parathyroid hormone (PTH), dihydroxyvitamin D (calcitriol), and calcitonin

* **A child developed diarrhea. Biopsy show villous atrophy and gluten free diet doesn’t improve his symptoms. Cuase?----------> Giardiasis**

The diagnosis is established by duodenal aspiration. A small intestinal biopsy revealed total villous atrophy in the absence of celiac sprue or a gastrointestinal immunodeficiency syndrome

* **profuse bleeding after circumcision. Lab should be done---------->Factor 8 assay**

Hemophilia suspicion. Check for factor 8 levels

* **People with blood group A+ are likely to develop ----------> Ca stomach**

study concludes that there was a slightly increased risk of gastric cancer in blood group A individuals, and people with blood type A are more prone to be infected by H. pylori than other ABO blood type individuals, whereas, a slightly decreased risk of gastric cancer was identified in blood type O individuals.

* **differentiate between Rickettsia and mycoplasma?---------->Gram stain**

These organisms are the smallest known free-living organisms. Because of the absence of cell walls, they do not stain with the Gram stain, and they are more pleomorphic and plastic than eubacteria.

* **Oxidative burst in neutrophils is related to?----------> Initiation of microbicidal killing**

The Oxidative Burst System in Amphioxus  
  
Usually it denotes the release of these chemicals from immune cells, such as neutrophils and macrophages because they are infected by different bacteria or fungi

* **Pain and temperature fibers are in?---------->Lateral spinothalamic tract**

After joining the spinal cord, the fibres cross after ascending 1–2 segments and synapse in Lissauer's tract. From there, the fibres ascend as the lateral or anterior spinothalamic tract, and terminate in the ventral posterior nucleus of the thalamus

* **Anterior border of the lumber triangle is formed by?----------> Posterior border of external oblique**

The borders of Petit's triangle, also known as the inferior lumbar triangle, is bounded by the latissimus dorsi posteriorly, the external oblique anteriorly, and the iliac crest inferiorly, which is the base of the triangle. The floor of the triangle is the internal oblique muscle.

* **B-cell lymphoma cause?---------->EBV**

Epstein-Barr virus (EBV)-positive diffuse large B-cell lymphoma (EBV+ DLBCL) is a rare type of lymphoma with a high incidence in elderly patients, poor drug response, and unfavorable prognosis.

* **Parietal cells release?----------> Intrinsic factor and Hcl**

Parietal cells (also known as oxyntic or delomorphous cells) are the epithelial cells that secrete hydrochloric acid (HCl) and intrinsic factor.

* **Potent stimulator of gastrin release is?----------> Protein**

Proteins More specifically, phenylalanine and tryptophan are the most potent stimulators of gastrin secretion among the protein digestion products. The vagal nerve stimulation of gastrin secretion is unique because gastrin and motilin are the only hormones released directly by neural stimulation

* **The highest conduction velocity in cardiac tissue is found in?---------->Purkinje fibers**

the conduction velocity in the His and purkinje fibers of the ventricles goes back up to 2-4 meters per second, which is the fastest in the heart

* **Medial leminiscus is formed by decussation of?----------> Internal arcuate fibers**

The medial lemniscus is formed by the crossings of the internal arcuate fibers. .

* **Hyaline cartilage is present in?----------> Larynx**

Hyaline cartilage exists on the ventral ends of ribs, in the larynx, trachea, and bronchi, and on the articulating surfaces of bones. It gives the structures a definite but pliable form. The presence of collagen fibres makes such structures and joints strong, but with limite mobility

* **type of end artery---------->Central retinal artery**

Central artery of retina and labyrinthine artery of internal ear are the best examples of absolute end arteries

* **cause of delay wound healing?----------> Infection**

Wound healing can be delayed by factors local to the wound itself, including desiccation, infection or abnormal bacterial presence, maceration, necrosis, pressure, trauma, and edema.

* **Blood show increase RBC, WBC and platelet count Bone marrow shows hyperplasia. Cause---------->Myeloproliferative disorder**

Myeloproliferative neoplasms (MPNs) are a subset of bone marrow disorders. They are a group of diseases characterized by the production of too many of one or more types of blood cells in the bone marrow. ... Tests: Complete Blood Count, WBC Differential, Blood Gases, Erythropoietin ...

* **Mechanism of Pyrimethamine in malarial parasite?---------->Inhibits Dihydrofolate reductase**

Pyrimethamine is an antifolate drug which inhibits dihydrofolate reductase (DHFR), an essential enzyme in the parasite's folic acid pathway. Sulfadoxine, a sulfa drug, is an analogue of p-aminobenzoic acid (PABA) and competitively inhibits dihydropteroate synthase (DHPS), which also is required for folate biosynthesis.

* **Nissl bodies are mainly present in? ----------> RER**

A Nissl body, also known as Nissl substance and Nissl material, is a large granular body found in neurons. These granules are of rough endoplasmic reticulum (RER) with rosettes of free ribosomes, and are the site of protein synthesis

* **In urine spironolactone----------> Increases sodium excretion and decreases potassium excretion**

Spironolactone is a potassium-sparing diuretic (water pill) that prevents your body from absorbing too much salt and keeps your potassium levels from getting too low. ... Aldosterone is a hormone produced by your adrenal glands to help regulate the salt and water balance in your body.

* **The best test to diagnose acute infection by immunoglobulin?---------->IgM**
* **Long term memory is made by?----------> Protein synthesis and gene activation**

PKC isozyme activation induce the synthesis of proteins necessary and sufficient for subsequent long-term memory consolidation

* **Most common pro-thrombotic point mutation is?---------->Factor 5**

Factor V Leiden is the most commonly inherited prothrombotic state, accounting for at least 90 percent of the cases of resistance to activated protein C. The mutation is inherited as an autosomal dominant trait and has a prevalence of approximately 5 percent in the Caucasian population.

* **Heparin primarily acts on?---------->Anti-thrombin 3**

Heparin acts as an anticoagulant by activating antithrombin (previously known as antithrombin III) and accelerating the rate at which antithrombin inhibits clotting enzymes, particularly thrombin and factor Xa

* **causes decreased renal clearance of Ca ions?----------> Chlorothiazide**

Thiazide medications can raise calcium levels by preventing calcium from being released in the urine, which can also lead to kidney stones.

* **Tumor marker of ovaries  
  ---------->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.

* **A urine sample shows a reddish brown hue and contains both RBC and protein. Cause may be  
  ---------->Fusion of Podocyte foot processes**

Podocytes are highly specialized cells of the kidney glomerulus that wrap around capillaries and that neighbor cells of the Bowman's capsule. ... The genetic or acquired impairment of podocytes may lead to foot process effacement (podocyte fusion or retraction), a morphological hallmark of proteinuric renal diseases

* **When confidentiality of a patient be breeched?---------->When the patient allows**
* **Internal capsule lesion involves?---------->Spastic paralysis on opposite side of body**

Lesions of the genu of the internal capsule affect fibers of the corticobulbar tract. The primary motor cortex sends its axons through the posterior limb of the internal capsule. Lesions, therefore, result in a contralateral hemiparesis or hemiplegia. source:wikepedia

* **HLA B5 is associated with?---------->Behcet disease**

Behçet's Disease. Human leukocyte antigen (HLA)-B5 and HLA-B51 genes are important in the pathogenesis of the disease. The criteria for Behçet's disease (BD) include recurrent oral and genital ulcers, eye lesions (uveitis or retinal vasculitis), characteristic skin lesions, and a positive pathergy test.

* **cystic fibrosis is?---------->Autosomal recessive**

CF is inherited in an autosomal recessive manner. It is caused by the presence of mutations in both copies of the gene for the cystic fibrosis transmembrane conductance regulator (CFTR) protein. Those with a single working copy are carriers and otherwise mostly healthy.

* **Different in the saliva of a cystic fibrosis patient?---------->More chloride than sodium**

Saliva and sweat are modified by cystic fibrosis (CF). In both cases the chloride and sodium ion concentrations for healthy subjects and CF patients differ, this representing a possible alternative tool for CF diagnosi

* **big toe lymphatics?---------->Vertical group of superficial inguinal lymph nodes**

The superficial inguinal nodes are located in the superficial fascia of the upper thigh near the inguinal ligament and great saphenous vein. They number around 10 and drain lymph from the gluteal region, inferior anterior abdominal wall, perineum and superficial lower limbs.

* **Memory center is located in ---------->Temporal lobe**

The hippocampus is a structure in the brain that has been associated with various memory functions. It is part of the limbic system, and lies next to the medial temporal lobe

* **Which of the following causes severe steatorrhea?---------->Total pancreatectomy**

Pancreatic exocrine insufficiency can follow major pancreatic resection and result in the malabsorption of fat, causing symptoms of steatorrhea, abdominal pain and weight loss.

* **Most growth hormone have their receptor located on?---------->Plasma membrane**

Receptors for peptide hormones tend to be found on the plasma membrane of cells, whereas receptors for lipid-soluble hormones are usually found within the cytoplasm. Upon hormone binding, the receptor can initiate multiple signaling pathways that ultimately lead to changes in the behavior of the target cells.

* **In dehydration, thirst is stimulated by sensory receptors present in?---------->hypothalamus**

Osmoreceptors are sensory receptors in the thirst center in the hypothalamus that monitor the concentration of solutes (osmolality) of the blood. ... To conserve water, the hypothalamus of a dehydrated person also sends signals via the sympathetic nervous system to the salivary glands in the mouth.

* **Regarding A+ive blood group:----------> Anti B antibodies present in plasma**

The ABO blood group system involves two antigens and two antibodies found in human blood. The two antigens are antigen A and antigen B. The two antibodies are antibody A and antibody B. The antigens are present on the red blood cells and the antibodies in the serum.

* **Dietary precursor of serotonin is?---------->Tryptophan**

The precursor of serotonin is tryptophan. Tryptophan is an amino acid that is a routine constituent of most protein-based foods. Tryptophan is also one of the 20 amino acids present in standard genetic material. ... Levels of serotonin are regulated by several mechanisms.

* **asbestos exposure cause---------->Malignant mesothelioma**

Chronic low-level asbestos exposure has been associated with lung cancer, mesothelioma, and pleural diseases, including pleural asbestosis; higher doses are more likely to produce parenchymal asbestosis.

* **hormones balance in marathon runner---------->Decrease insulin and increase glucagon**

The normal increase in hepatic glucose output during exercise was reproduced when both insulin and glucagon were replaced. ... It is also suggested that the lower level of insulin during exercise still exerts a restraining effect on glucagon-stimulated glucose production and gluconeogenesis, thus preventing hyperglycemia.

* **histology of MI after 5 days----------> Macrophages**

In autopsy reports macrophage numbers associated closely with different stages of myocardial infarction

* **In full contraction of skeletal muscle, ---------->Two Z discs touches the edges . of myosin filaments**

During muscle contraction, each sarcomere shortens, bringing the Z discs closer together. ... Muscle contraction thus results from an interaction between the actin and myosin filaments that generates their movement relative to one another

* **Dysplasia is mainly seen in?----------> Epithelium**
* **Neuroendocrine response after surgery is due to?---------->Hemorrhage**

Acute haemorrhage results in the activation of the haematological, cardiovascular, renal and neuroendocrine systems. Neuroendocrine system As a result of decreased firing of baroreceptors from hypotension and decrease in sodium concentration, there is an increase in ADH from the posterior pituitary gland.

* **6 hours post operatively starts bleeding. helpful in assessing?----------> BP**

To assess hypotension amd degree of blood loss

* **male urethra----------> has psuedostratified columnar epithelium**

The epithelial lining of the male urethra changes from transitional epithelium at the bladder end to pseudostratified epithelium through prostatic, membranous and most of penile urethra, eventually changing to nonkeratinizing stratified squamous epithelium distally.

* **A female patient has jaundice, pruritus and xanthoma. Best investigation  
  ----------> Anti-mitochondrial antibody**

Antimitochondrial antibodies (AMA) are autoantibodies that are strongly associated with primary biliary cholangitis (PBC), formerly called primary biliary cirrhosis. This test detects and measures the amount (titer) of AMA in the blood

* **Porphyrin binds to?---------->Albumin**
* **DOC for Amebiasis is?---------->Metronidazole**

Metronidazole is the drug of choice for symptomatic, invasive disease; paromomycin is the drug of choice for noninvasive disease.

* **Oxytocin given to female but she is not responding to it. Cause---------->Less receptors in myometrium**

Activation of oxytocin receptor causes myometrial contractions by increasing intracellular Ca +2 and production of prostaglandins. Decreased receptors produce less response

* **Persistent increase renin occurs in?---------->Secondary hypertension**

Renal disease may also result in increased release of renin leading to a renin-dependent form of hypertension.

* **Left pontine nucleus is connected to?---------->Left cerebrum and right cerebellum**

The pontine nuclei are located in the ventral pons. Corticopontine fibres carry information from the primary motor cortex to the ipsilateral pontine nucleus in the ventral pons, and the pontocerebellar projection then carries that information to the contralateral cerebellum via the middle cerebellar peduncle.

* **PKD is ---------->Autosomal recessive**

Autosomal recessive polycystic kidney disease (ARPKD) is a genetic condition that is characterized by the growth of cysts in the kidneys (which lead to kidney failure) and liver and problems in other organs , such as the blood vessels in the brain and heart

* **Followed by  
  a QRS complex?  
  ---------->Ventricular contraction**

The QRS wave is sometimes called the QRS complex, and it represents the depolarization of the ventricles. This quickly leads to the contraction of the ventricles and ejection of blood out of the heart and into the large arteries exiting the heart

* **pt taking Antacids was diagnosed as gastric lymphoma. What is the most likely cause?----------> H. Pylori**

The exact cause of primary gastric lymphoma is unknown. However, a strong association between infection with Helicobacter pylori (H. pylori) and the development of MALT gastric lymphoma has been established

* **Which of the following pituitary hormones is an opioid peptide?---------->3-Endorphin**

3 Endogenous opioids. Beta-endorphin and the enkephalins are endogenous opioid peptides, and are derived from the same precursor molecule as ACTH.

* **Which is an example of a neuro- Hypophysial hormone? ---------->Oxytocin**

Neurohypophysial hormone. The neurohypophysial hormones form a family of structurally and functionally related peptide hormones. Their main representatives are oxytocin and vasopressin

* **Anti-neutrophils antibody is present in?---------->Vasculitis**

Anti-neutrophil cytoplasmic antibodies (ANCA) are autoantibodies against enzymes present in primary granules of neutrophils and lysosomes of monocytes detected in systemic vasculitis and in other diseases, including infections.

* **When the respiratory muscles are relaxed, the lungs are at----------> Functional residual capacity (FRC)**

The functional residual capacity (FRC) is the volume in the lungs at the end of passive expiration. It is determined by opposing forces of the expanding chest wall and the elastic recoil of the lung. A normal FRC = 1.7 to 3.5 L

* **No air entry on right side and hyper resonant on percussion, XR shows trachea shifted towards left Diagnosis is?  
  ---------->Right sided pneumothorax**

Tension pneumothorax: Variable findings; respiratory distress and chest pain; tachycardia; ipsilateral air entry on auscultation; breath sounds absent on affected hemithorax; trachea may deviate from affected side; thorax may be hyperresonant; jugular venous distention and/or abdominal distention may be present.

* **Deep vein thrombosis first gets lodged in?----------> Pulmonary artery and branches**

Pulmonary embolism occurs when a blood clot gets lodged in an artery in the lung, blocking blood flow to part of the lung. Blood clots most often originate in the legs and travel up through the right side of the heart and into the lung

* **Velocity of blood flow is maximum in?----------> Pulmonary artery**

The maximum velocity of the forward flow in the left pulmonary artery was higher than that in the right pulmonary

* **Most common glomerular disease in HIV patients is?----------> Focal segmental glomerulosclerosis**

Although FSGS is the predominant glomerular lesion in HIVAN, other reported glomerular lesions in patients with HIV include IgA nephropathy, cryoglobulinemia, amyloidosis, and a lupuslike immune complex glomerulopathy.

* **Thoracolumbar outflow is?---------->Sympathetic**

The sympathetic division has thoracolumbar outflow, meaning that the neurons begin at the thoracic and lumbar (T1–L2) portions of the spinal cord.

* **in transitional cell carcinoma of bladder. Causative agent in his case is?----------> Tobacco smoking**

Smoking and Bladder Cancer. Current cigarette smokers have a higher risk of bladder cancer than previously reported, according to new research. ... Smoking tobacco is the most important known risk factor for bladder cancer. Previous studies found that 20% to 30% of bladder cancer cases in women were caused by smoking

* **Standard deviation:---------->Always presented with a mean**

In statistics, the standard deviation is a measure of the amount of variation or dispersion of a set of values. A low standard deviation indicates that the values tend to be close to the mean of the set, while a high standard deviation indicates that the values are spread out over a wider range

* **Temperature is controlled by?---------->Anterior hypothalamus**

The hypothalamus is the processing centre in the brain that controls body temperature. It does this by triggering changes to effectors, such as sweat glands and muscles controlling body hair.

* **Biopsy of small intestine show rescent¬shaped protozoa. Cause?---------->Giardia lamblia**

Giardia infection is an intestinal infection marked by abdominal cramps, bloating, nausea and bouts of watery diarrhea. Giardia infection is caused by a microscopic parasite that is found worldwide, especially in areas with poor sanitation and unsafe water.

* **Drug cross placenta and affects fetus---------->PTU**

Propylthiouracil (PTU) is widely believed to cross the placenta less freely than methimazole (MMI) and is therefore regarded as the preferred drug for treatment of hyperthyroidism in pregnancy.

* **useful effect of positive inotropic?----------> Increases contractility**

An inotrope is an agent that alters the force or energy of muscular contraction

* **Hypothyroidism due to thyroid gland disease is associated with increased level of?---------->Cholesterol**

Hypothyroidism may also be associated with an increased risk of heart disease and heart failure, primarily because high levels of low-density lipoprotein (LDL) cholesterol — the "bad" cholesterol — can occur in people with an underactive thyroid

* **Hyponatremia is likely caused by?---------->Increase in body water**

Hyponatremia is decrease in serum sodium concentration < 136 mEq/L caused by an excess of water relative to solute. Common causes include diuretic use, diarrhea, heart failure, liver disease, renal disease, and the syndrome of inappropriate ADH secretion (SIADH

* **The most important factor for the repair of vascular endothelium is produced by?----------> Platelets**
* **During meiosis abnormalities may occur if one of the cell gets an extra chromosome instead of haploid number. The condition is called?---------->Non-disjunction**

The phenomenon of unequal separation in meiosis is called nondisjunction. If nondisjunction causes a missing chromosome in a haploid gamete, the diploid zygote it forms with another gamete will contain only one copy of that chromosome from the other parent, a condition known as monosomy

* **excitatory synapse?---------->Cation influx on postsynaptically through ligand gated channels**

An excitatory synapse is a synapse in which an action potential in a presynaptic neuron increases the probability of an action potential occurring in a postsynaptic cell. Neurons form networks through which nerve impulses travel, each neuron often making numerous connections with other cells.

* **A person took stairs to 5th floor. Increase in cardiac output will be due to?----------> Increase preload**

Increasing the force of contraction expels more blood from the left ventricle, so that cardiac output increases when the preload increases. This preload is generally expressed as the right atrial pressure, the pressure which drives filling of the heart. The afterload also affects cardiac output

* **The best index of afterload is?----------> Blood Pressure**

Afterload is the pressure against which the heart must work to eject blood during systole (systolic pressure). The lower the afterload, the more blood the heart will eject with each contraction. Like contractility, changes in afterload will raise or lower the Starling curve relating stroke volume index to LAP.

* **Opioids produces vomiting by acting on?---------->Chemo trigger zone in medulla**

Low doses of opioids activate mu opioid receptors in the chemoreceptor trigger zone (CTZ), thereby stimulating vomiting.

* **homonymous hemianopia occurs damage to---------->Optic tract**

Vascular and neoplastic (malignant or benign tumours) lesions from the optic tract, to visual cortex can cause a contralateral homonymous hemianopsia.

* **Daily urine output in normal adult person is?----------> 1.5L-2L**

The normal range for 24-hour urine volume is 800 to 2,000 milliliters per day (with a normal fluid intake of about 2 liters per day)

* **Cross-bridge of sarcomere in skeletal muscle are----------> Myosin**

This pulls the attached actin filaments towards the centre of 'A' band. The 'Z' line attached to these actins are also pulled inwards thereby causing a shortening of the sarcomere, i.e., contraction. Hence cross bridges of sarcomere in skeletal muscle are made up of myosin. So, the correct answer is 'Myosin'.

* **Which of the following is a lactic acid oxygen debt?---------->3.5L**

In moderate exercise of long duration in man, involving an oxygen debt of 3 to 3.5 L

* **A pregnant woman has 10 which was 12 intially. What is the cause of anemia?----------> Normal physiological change**

Although red blood cell (RBC) mass increases during pregnancy, plasma volume increases more, resulting in a relative anemia. This results in a physiologically lowered hemoglobin (Hb) level, hematocrit (Hct) value, and RBC count, but it has no effect on the mean corpuscular volume (MCV).

* **In CKD cause of anemia?  
  ---------->Erythropoietin deficiency**

Chronic kidney disease (Nearly every patient with this type of disease will be get anemia because kidneys make erythropoietin (EPO), a hormone that controls the production of red blood cells in the bone marrow

* **high grade fever and not responding to treatment for more than 2 weeks with burning micturation. Diagnosis is?---------->Acute pyelonephritis**

Acute pyelonephritis is a sudden and severe kidney infection. It causes the kidneys to swell and may permanently damage them. Pyelonephritis can be life-threatening. When repeated or persistent attacks occur, the condition is called chronic pyelonephritis.

* **Ideal site for lumbar puncture is?---------->Below L4**

It is important to insert the spinal needle below the conus medullaris at the L3/L4 or L4/L5 interspinous levels. With growth of the spine, the conus typically reaches the adult level (L1) by 2 years of age.

* **in Carbon monoxide poisoning ----------> Decrease ability of 02 to bind hemoglobin**

Headache, nausea and vomiting are the features of mild CO exposure, often along with a general feeling of malaise. These non-specific symptoms may be misdiagnosed as more common illnesses, such as flu, gastroenteritis or food poisoning

* **First step in thyroid hormone synthesis is?----------> Oxidation of iodide**

The initial step in thyroid hormone production is the active uptake of circulating iodide across the basolateral membrane by the sodium-iodide symporter, NIS (SLC5A5), which co-transports one iodide ion against its electrochemical gradient together with two sodium ions along a sodium gradient generated by the Na +/K

* **IV Benzodiazepine will likely cause significant hypotension if given to?----------> Hypovolemia**

Intravenous (IV) benzodiazepines can be associated with cardiac and/or respiratory arrest if they are given too rapidly. Other reactions due to IV administration may include: hypotension (low blood pressure) cardiac arrhythmias (abnormal heart rates)

* **The slow waves in small intestinal smooth muscle cells are?---------->Oscillating resting membrane potentials**

Slow-wave potential. A slow wave potential is a rhythmic electrophysiological event in the gastrointestinal tract. ... Slow waves are generated and propagated by a class of pacemaker cells called the interstitial cells of Cajal, which also act as intermediates between nerves and smooth muscle cells

* **Disequilibrium and disturbance of ANS occurs in?---------->Meniere’s disease**

Dizziness, vertigo, disequilibrium They are all symptoms that can result from a peripheral vestibular disorder e.g meneier disease (a dysfunction of the balance organs of the inner ear) or central vestibular disorder (a dysfunction of one or more parts of the central nervous system that help process balance and spatial information

* **Mature lymphocytes in OLD with recurrent infection history. Cause?----------> 9:22 translocation**

9:22 dislocation occurs in CML. Most people are diagnosed with CML through a blood test called a complete blood count (CBC) before they have any symptoms. ... When the CML is more advanced, there may also be low levels of red blood cells, a condition called anemia, and either high or low numbers of platelets. Bone marrow aspiration and biopsy.

* **Jugulo-diagastric nodes drain---------->Palatine tonsils**

Jugulodigastric is a Superior deep cervical lymph node and it mainly drains oropharynx, cheek, part of lip

* **part brachial plexus has branches that supply the extensor muscles of the arm?---------->Posterior cord**

The posterior cord of brachial plexus after giving upper subscapular, thoracodorsal, lower subscapular, and axillary nerve in the axilla continues distally as the radial nerve

* **A woman presented with vulvar itching and yellow/green frothy, purulent vaginal discharge. What is the likely cause?---------->Trichomonas vaginalis**

symptoms of trichomoniasis. vaginal discharge, which can be white, gray, yellow, or green, and usually frothy with an unpleasant smell.vaginal spotting or bleeding.  
genital burning or itching.  
genital redness or swelling.  
frequent urge to urinate.  
pain during urination

* **which deficiency is associated with cardiomyopathy?---------->Thiamine**

Thiamine (vitamin B1) serves as an important cofactor in body metabolism and energy production. ... The cardiac insufficiency caused by thiamine deficiency is known as cardiac beriberi, with this condition resulting from unbalanced nutrition and chronic excessive alcohol intake.

* **erythrocytes prevent from oxidative stress by?----------> HMP shunt**

Hexose Monophosphate Shunt (HMS) Hexose monophosphate shunt activity is also high in mature erythrocytes, the lens and cornea, all of which need NADPH for reduced glutathione production (which in turn protects them from oxidative damage;

* **most potent anti¬oxidant?----------> Glutathione**

Glutathione is considered the most powerful endogenous antioxidant with a wide variety of functions in the body. It consists of three amino acids: cysteine, glutamic acid and glycine.

* **anti tuberculosis drugs can cause hyperuricemia?----------> Pyrazinamide**

Pyra zinamide and ethambutol are two anti tuberculous drugs that have been reported to induce hyperuricemia. Pyrazinamide is a strong urate retention agent, causing a greater than 80% reduction in renal clearance of uric acid at a 300-mg therapeutic daily dose.

* **in the upper limb, the median nerve lies:----------> Medial to the brachial artery in the cubital fossa**

Anatomy of median nerve along its course in upper extremity. As the nerve courses to the elbow, it lies close to the brachial artery, crossing it anteriorly to medially. ... In the carpal tunnel, the median nerve runs anteriorly and laterally to the tendons of the FDS

* **Parkinson disease occurs due to lesion in---------->Substantia nigra**

The substantia nigra is critical in the development of many diseases and syndromes, including parkinsonism and Parkinson's disease

* **rheumatic mitral stenosis develops fever, after tooth extraction. Organism involve---------->Strep viridans**

Subacute bacterial endocarditis (SBE) is an infection of the heart involving damaged valves or endothelium. The most common organisms causing SBE are the viridans streptococci.

* **Facial nerve after emerging from Stylomastoid foramen ---------->Lies posterior to parotid**

A sensory branch exits the nerve immediately below the stylomastoid foramen and innervates the posterior wall of the external acoustic meatus and a portion of the tympanic membrane. ... The facial nerve crosses lateral to the styloid process and enters the parotid gland

* **German measles complication in newborn  
  ---------->Congenital cataract**

The most common birth defects from CRS can include: Deafness. Amd cataract

* **3rd arch?   
  ---------->Stylopharyngeus muscle**

The third arch gives rise to stylopharyngeus, and its sensory function is to provide taste and general sensation to the posterior 1/3rd of the tongue. Fig 2 – The stylopharyngeus is derived from the third pharyngeal arch.

* **Drugs would be most useful in treating the pulmonary edema?----------> Furosemide**

Diuretics. Doctors commonly prescribe diuretics, such as furosemide (Lasix), to decrease the pressure caused by excess fluid in your heart and lungs

* **Ca of greater curvature of the stomach will likely spread to which lymph node?---------->Celiac node**

Most of the lymphatic drainage from the stomach reaches the celiac nodes after passing through intermediary nodes. The lymph from the gastric wall drains into lymphatic vessels that arise in the mucosa, then form a rich network in the submucosa and then come together in a sub-peritoneal plexus

* **adult hemoglobin:----------> 2 alpha, 2 beta**

Hemoglobin A is the most common adult form of hemoglobin and exists as a tetramer containing two alpha subunits and two beta subunits (α2β2). ... This hemoglobin makes up 1-3% of hemoglobin in adults.

* **Blood analysis show digoxin level to be at 4 nanogram/ml. How long should digoxin (plasma half-life 36 hours) be withheld so that the plasma level falls to a safe & therapeutically effective contraction of 1 nanogram/ml?----------> 72 hours**
* **The structure most likely to be affected by pus in the adductor canal is?----------> Femoral vein**

The structures contained in the adductor canal are: the femoral artery, femoral vein, saphenous nerve, and nerve to vastus medialis.

* **Female with painful joints, Herberden’s nodes & is associated with amyloidosis with Congo red stain. Joint findings----------> Amyloid associated protein**

Musculoskeletal manifestations of AL amyloid include muscle weakness (myopathy) and enlargement due to amyloid infiltration (pseudohypertrophy), disorders of the joints (arthropathy), and lesions of bone (osteopathy). Other manifestations of AL amyloidosis are described separately

* **A pregnant lady presented with jaundice. Ultrasound abdomen was normal. The most useful serum enzyme ---------->GGT**

High levels of GGT in the blood could indicate that the enzyme is leaking out of the liver cells and into the blood, suggesting damage to the liver or bile ducts.. ... ALP is already increased due to placental secretion

* **The antibody binding site is formed primarily by?---------->The hypervariable region of H and L chain**

The antigen binding site is formed from the amino-terminal ends (variable domains) of L and H chains. The two chains are folded to form globular variable domains, VH and VL, similar to the folded domains of the constant regions

* **Myasthenia gravis has 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

* **A patient on 12 weeks’ antibiotic course and 3 weeks TPN. He now presents with ecchymosis. Bloods show normal platelet count and PT 19. Cause?  
  ----------> Vit K deficiency**

bacteria in your intestines can make vitamin K

* **loss of motor tone in his right arm and leg positive Babinski’s sign. Lesion will be at?----------> Left internal capsule**

Lesions of the genu of the internal capsule affect fibers of the corticobulbar tract. The primary motor cortex sends its axons through the posterior limb of the internal capsule. Lesions, therefore, result in a contralateral hemiparesis or hemiplegia.

* **Characteristic sign of cerebellar disease is?---------->Dysdiadokokinesia**

The principal signs of cerebellar dysfunction are the following: Ataxia: unsteadiness or incoordination of limbs, posture, and gait. A disorder of the control of force and timing of movements leading to abnormalities of speed, range, rhythm, starting, and stopping.

* **Pellagra is caused due to deficiency of?---------->Niacin**

Pellagra is a disease caused by a lack of the vitamin niacin (vitamin B3)

* **lymphadenopathy and hepatosplenomegaly present. Blood reveal he also has anemia. Hx of bitten by fly. The final diagnosis is?  
  ----------> Kalazar (leishmaniasis)**

Visceral leishmaniasis, also known as kala-azar, is characterized by irregular bouts of fever, substantial weight loss, swelling of the spleen and liver, and anaemia (which may be serious). If the disease is not treated, the fatality rate in developing countries can be as high as 100% within 2 years.

* **enzyme deficiency causes Pompe disease?---------->Lysosomal alpha glucosidase enzyme**

Glycogen storage disease type II, also called Pompe disease, is an autosomal recessive metabolic disorder which damages muscle and nerve cells throughout the body. It is caused by an accumulation of glycogen in the lysosome due to deficiency of the lysosomal acid alpha-glucosidase enzyme.

* **progressive prolongation of PR interval in successive beats followed by dropped heartbeat. Diagnosis ---------->Mobitz 1 Av block**

Mobitz I heart block is characterized by progressive prolongation of the PR interval on consecutive beats followed by a blocked P wave (i.e., a dropped QRS complex).

* **pain in hands joints. hands had starting to deform and she had nodules on extensor surface. diagnosis is?----------> RA**

Pain. Early symptoms of arthritis of the hand include joint pain that may feel "dull," or a "burning" sensation. ...  
  
Swelling. ...  
  
Changes in Surrounding Joints. ...  
  
Warmth. ...  
  
Crepitation and Looseness. ...  
  
Cysts.

* **side effect of  
  Levodopa?  
  ----------> Orthostatic hypotension**

Postural hypotension after L-DOPA is probably not due to a-adrenoceptor blockade, a central effect or any effect on the kidney. The most likely hypothesis is that L-DOPA forms dopamine which acts as a false transmitter in the peripheral sympathetic nervous system.

* **to Sample of ABG of a patient in ICU. Sample should be taken from?----------> Arterial whole blood in Heparinized tube**

An arterial blood gas (ABG) is a blood test carried out by taking blood from an artery, rather than a vein. It is performed so that an accurate measurement of oxygen and carbon dioxide levels can be obtained, which then allows the patients oxygen to be delivered appropriately

* **In fetal life, shunting of blood between pulmonary trunk and aorta occurs through?----------> Patent ductus arteriosis**

During fetal development, the ductus arteriosus serves as a shunt between the pulmonary artery and the aorta. In the fetus, the blood is oxygenated in the placenta before being returned to the body. ... Instead, the arterioles in the lungs constrict, which restricts the amount of blood flow that can pass through

* **A patient presented with sore throat and fever tonsils were inflamed. mediators in this process are?---------->TNF and interleukin 1**

Large amounts of TNF are released in response to lipopolysaccharide, other bacterial products, and Interleukin-1 (IL-1).

* **Which cells mainly make up pus?----------> Neutrophils**

Pus is made of dead neutrophils and macrophages, mostly. In most cases, pus is the result of bacterial infection,

* **Most serious complication of estrogen in postmenopausal women?---------->Endometrial CA**

Most cases of endometrial cancer are diagnosed in women who are past menopause and are in their mid-60s

* **artery takes part in forming the circle of Willis?---------->Posterior communicating**

At the base of the brain, the carotid and vertebrobasilar arteries form a circle of communicating arteries known as the Circle of Willis. From this circle, other arteries—the anterior cerebral artery (ACA), the middle cerebral artery (MCA), the posterior cerebral artery (PCA)—arise and travel to all parts of the brain.

* **If CO2 production rate is kept constant and ventilation is reduced to one half, then?----------> pCO2 double**

If we reduce the total ventilation of an otherwise normal lung by half, ie give it a global V/Q ratio of 0.5, CO2 levels will rise and eventually reach equilibrium at 80mmHg but the patient will become very hypoxic well before the CO2 levels get high.

* **Nerve supply to adrenal medulla is from?----------> Preganglionic greater splanchnic nerve**

The adrenal medulla is driven by the sympathetic nervous system via preganglionic fibers originating in the thoracic spinal cord, from vertebrae T5–T11.

* **gene which arrest the cell cycle at G1 for repair is---------->P53**

p53, also known as TP53 or tumor protein (EC :2.7. 1.37) is a gene that codes for a protein that regulates the cell cycle and hence functions as a tumor suppression. It is very important for cells in multicellular organisms to suppress cancer.

* **A man presented furuncle on tip of nose, high fever and increased ICP. Diagnosis?----------> Cavernous sinus thrombosis**

Cavernous sinus thrombosis (CST) is the formation of a blood clot within the cavernous sinus, a cavity at the base of the brain which drains deoxygenated blood from the brain back to the heart. ... The cause is usually from a spreading infection in the nose, sinuses, ears, or teeth.

* **lymphatics role----------> Infection clearance from lymph by draining**
* **Molecules of rRNA is synthesized in?----------> Nucleolus**

Molecules of rRNA are synthesized in a specialized region of the cell nucleus called the nucleolus, which appears as a dense area within the nucleus and contains the genes that encode rRNA.

* **Surgical gloves allergy is due to?----------> Polyisoprene (latex)**

Latex allergy symptoms may include hives, itching, stuffy or runny nose. ... A second type of skin allergy called “allergic contact dermatitis” may be caused by chemicals used to manufacture rubber gloves

* **Pus contains----------> Dead Neutrophils**

Pus consists of macrophages and neutrophils, sent by the body's immune system to combat infection. Pus is the result of the body's natural immune system automatically responding to an infection, usually caused by bacteria or fungi. ... For this reason, pus also contains dead bacteria.

* **After MI neutrophills will be present after----------> 48 hours**
* **type of motor fibers are given by the pyramidal tract?----------> Alpha & gamma motor**

The firing of gamma motor neurons in sync with alpha motor neurons pulls muscle spindles from polar ends of the fibers as this is where gamma motor neurons innervate the muscle. The spindle is innervated by type Ia sensory fiber that go on to synapse with alpha motor neurons, completing the gamma-loop.

* **The most potent inhibitor of insulin is?----------> Somatostatin**

Somatostatin (SST) potently inhibits insulin and glucagon release from pancreatic islets

* **hormone exhibits a balance between weight and puberty?----------> Leptin**

Our fat cells make leptin. The more fat we have, the more leptin in our systems. Leptin seems to play a key role in regulating appetite, body type, and reproduction

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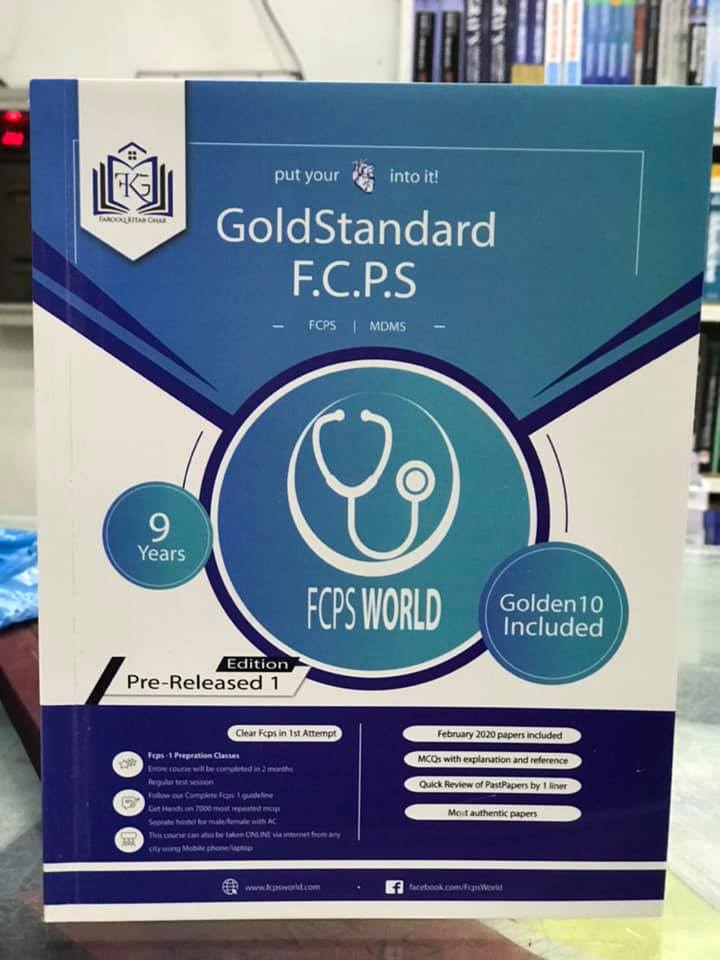
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