

**GoldStandard FCPS:**

**Surgery & Allied**

**18th September 2019 Night** 

 **(Errors and omissions excepted)**

**Cram Statements**

 **T lymphocytes are protected from autoimmune destruction by?---->Blood thymus barrier**

The blood–thymus barrier regulates exchange of substances between the circulatory system and thymus, providing a sequestered environment for immature T cells to develop.

* **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.

* **60% of SA node is supplied by?---->RCA**

The sinoatrial nodal artery (or sinuatrial nodal artery or sinoatrial artery) is an artery of the heart which supplies the sinoatrial node, the natural pacemaker center of the heart, and arises from the right coronary artery in around 60% of people

* **80% Oxygenated blood?---->UmbiLical vein**

The umbilical vein carries oxygenated blood, with an oxygen saturation of between 80% and 90%, from the placenta to the umbilical cord The cord enters the fetal abdomen, where it divides to form the portal sinus and the venous duct.

* **fracture of pelvic bone in RTA with shock. Most likely cause of shock is?----> Excessive blood loss**

Hypovolemic shock. Hypovolemic shock is an emergency condition in which severe blood or fluid loss makes the heart unable to pump enough blood to the body. This type of shock can cause many organs to stop working

* **PT normal APTT 60 sec and BT 6 min. What is the defect?----> Intrinsic pathway**

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.

* **smoker is working at a tire factory. cause of carcinoma in him?---->Smoking**

 Smoking tobacco is the most important known risk factor for bladder cancer.

* **given hyperbaric oxygen goes into respiratory distress. Cause---->Spontaneous pneumothorax**

Tension pneumothorax is an absolute contraindication to hyperbaric oxygenation (HBO). During the decompression, at the end of the hyperbaric session, the increase in gas volume related to decreasing the pressure in the chamber can induce tension pneumothorax

* **compound fracture of femur After few days wound was healing well with some serosanguinous fluid oozing ----> Foreign body**

Foreign bodies are one of the commonest reasons for non-healing wounds, and include foreign matter (e.g. sand or grit particles, wood or other plant matter, or metal/glass) or necrotic tissue (e.g. bone, tendon, skin). Hair can be driven into the wound or can be deposited during wound clipping.

* **A patient with known HBV infection comes with HBsAg +ve, HBeAg +ve, HBc Ab IgM +ve. What is the diagnosis?----> Acute hepatitis**

 Acute hepatitis B is a clinical diagnosis identified by the detection of HBsAg, symptoms, high serum aminotransferases. Usually anti-HBc IgM can be detected and HBV DNA is present. HBeAg can also be identified in most acute phase of infections, but has little clinical importance.

* **A pregnant lady with labor pains and obstructed labor was taken to the hospital but died before reaching to the hospital. Most likely cause is?----> Amniotic fluid embolism**

Amniotic fluid embolism or AFE is a life-threatening, acute and unexpected birth complication that can affect both mother and baby. AFE is characterized by acute and rapid collapse of mother and/or baby as a result of an allergic-like reaction to amniotic fluid entering the maternal circulatory system.

* **Alcoholic man presented with abdominal pain, serum amylase level came to be 1600, ALT 75, What is your diagnosis---->Acute pancreatitis**

The diagnosis of acute pancreatitis requires the presence of at least two of the three diagnostic criteria – characteristic abdominal pain, elevated serum amylase or lipase, and radiological evidence of pancreatitis. Serum concentrations of amylase and lipase rise within hours of the pancreatic injury.

* **APTT prolong. PT & BT normal,
cause?
---->Factor 8 deficiency**

Hemophilia A, also called factor VIII (FVIII) deficiency or classic hemophilia, is a genetic disorder caused by missing or defective factor VIII, a clotting protein. Although it is passed down from parents to children, about 1/3 of cases are caused by a spontaneous mutation, a change in a gene.

* **artery lies almost behind the sternum?----> Internal thoracic artery (ascending aorta is directly behind sternum)**

The internal thoracic artery arises from the subclavian artery near its origin. It travels downward on the inside of the ribcage, approximately a centimeter from the sides of the sternum, and thus medial to the nipple. It is accompanied by the internal thoracic vein.

* **Bifurcation of Trachea at vertebral Level of---->T4**

 The trachea, or windpipe , which has cervical and thoracic parts, extends from the inferior end of the larynx (C6 vertebra) to its point of bifurcation (between T5 and 7 vertebral level). It is about 9 to 15 cm in length.

* **Blood supply of head of femur---->Retinacular artery**

The blood supply to the femoral head is variable. Three main arteries supply the femoral head. The lateral epiphyseal branch of the medial femoral circumflex and the ascending branch of the lateral femoral circumflex both ascend from the deep femoral artery.

* **Carcinoma (adenocarcinoma)of colon will metastasize first to----> Liver**

Colon cancer most often spreads to the liver, lungs, and peritoneum (the lining of the abdomen). This cancer can also reach the bones and other organs. If it spreads to another organ, that's called metastatic, or stage IV, colon cancer

* **common cause of hyperthyroidism?---->Grave's disease**

Graves' disease is the most common cause of hyperthyroidism, and can be associated with eye disease (Graves' opthalmopathy). Many other health problems can cause an overactive thyroid, for example, thyroiditis or taking too many thyroid hormones

* **Cranial nerve causing Salivation---->IX**

Cranial Nerve 9 - Glossopharyngeal (IX)
The sensory component of the glossopharyngeal nerve conveys information about taste and other sensations from the throat and the posterior third of the tongue. The motor component of this nerve controls the acts of swallowing and salivation, and the dilation of blood vessels.

* **Cysticercosis caused by < ingestion---->Pork**

Cysticercosis is a parasitic disease caused by ingesting the eggs of the pork tapeworm, Taenia solium

* **Dorsal nucleus of vagus nerve is present at----> Medulla**

The dorsal nucleus of the vagus nerve (or posterior motor nucleus of vagus) is a cranial nerve nucleus for the vagus nerve in the medulla that lies ventral to the floor of the fourth ventricle.

* **drug increases the esophageal sphincter tone and gastrointestinal motility?---->Metoclopramide**

Metoclopramide is a GI prokinetic agent that increases GI motility, increases resting esophageal sphincter tone, and relaxes the pyloric sphincter

* **DVT triad---->Endothelial damage, increase viscosity, stasis (SHE)**

Virchow's triad or the triad of Virchow describes the three broad categories of factors that are thought to contribute to thrombosis. Hypercoagulability. Hemodynamic changes (stasis, turbulence) Endothelial injury/dysfunction

* **factor wont delay the healing----> Sutures**

Sutures and fibrin sealant are important surgical aids for facilitating wound closure and creating an optimal setting for wound healing. Most commonly, sutures are used to close wounds because suture material provides the mechanical support necessary to sustain closure

* **feature for malignant tumor?----> Invasion of adjacent tissue**

Thus, characteristics of malignant neoplasms include: More rapid increase in size. Less differentiation (or lack of differentiation, called anaplasia) Tendency to invade surrounding tissues.

* **Ferrous form of iron---->Hemoglobin**

Ferrous sulfate facilitates oxygen transport by hemoglobin (Hb). It is utilized as an iron supply as it replaces the Fe found in Hb, myoglobin and other enzymes. Iron is needed by the human body to maintain optimal health, particularly for helping to form red blood cells (RBC) that carry oxygen around the body

* **fluid given indehydration, initially decrease ICF and increase ECF and increases total body water?---->3% normal saline**

3% and 5% Sodium Chloride Injection, USP is a sterile, nonpyrogenic, hypertonic solution for fluid and electrolyte replenishment in single dose containers for intravenous administration

* **function of cerebellum---->Maintain gait**

The cerebellum receives information from the sensory systems, the spinal cord, and other parts of the brain and then regulates motor movements. The cerebellum coordinates voluntary movements such as posture, balance, coordination, and speech, resulting in smooth and balanced muscular activity.

* **Gustatory sweating after superficial Parotidectomy. nerve damaged is---->Auriculotemporal nerve**

Auriculotemporal syndrome (Frey's syndrome) is triggered when foods that increase salivation cause a flushing reflex through the auriculotemporal branch of the trigeminal nerve resulting in a 'strap-like' rash on both sides of the face. Gustatory rhinitis triggers rhinorrhea due to the ingestion of spicy foods.

* **history of intake of continuous antibiotics by mother which vitamin will be deficient
----> VitK**

neonates are prone to vitamin K deficiency due to the limited stores at birth and insufficient intake.

 **Hypercalcemia will lead to formation of?
---->24,25 hydroxycholecalciferol**

* **immediate effect of Insulin?---->Potassium entry into the cell**

Insulin is a potent stimulus for hypokalaemia, sparing body potassium from urinary excretion by transporting it

* **In a study, a population was divided into subgroups based on age and from each subgroup the samples were taken randomly. Such sampling is known as?----> Stratified random sampling**

In statistics, stratified sampling is a method of sampling from a population which can be partitioned into subpopulations. In statistical surveys, when subpopulations within an overall population vary, it could be advantageous to sample each subpopulation independently. Wikipedia

* **In lesion distal to optic chiasma on left side, the visual defect will be?----> Right homonymous hemianopia**

Homonymous hemianopia (HH) involves vision loss on the same side of the visual field in both eyes. This type of visual field loss is indicative of a lesion involving the visual pathway posterior to the chiasm

* **In primary dehydration, ECF becomes?----> Hypertonic**

Hyponatremic (hypotonic) dehydration occurs when the lost fluid contains more sodium than the blood (loss of hypertonic fluid). ... 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). Blood osmolality is increased, causing the water to shift from the intracellular to the extracellular space.

* **Inc Serum Ca++ ,lnc PTH, Dec serum PO4, inc urine Calcium and hematuria diagnosis---->Primary Hyperparathyroidism**

Primary hyperparathyroidism (PHPT) is a disorder of one or more of the parathyroid glands The parathyroid gland(s) becomes overactive and secretes excess amounts of parathyroid hormone (PTH). As a result, the blood calcium rises to a level that is higher than normal (called hypercalcemia)

* **Injury in the region of anatomical snuff box resulted in severe bleeding due to injury of?---->Radial artery**

The main contents of the anatomical snuffbox are the radial artery, a branch of the radial nerve, and the cephalic vein. The radial artery crosses the floor of the anatomical snuffbox in an oblique manner. It runs deep to the extensor tendons.

* **Injury to sacral segments of spinal cord cause?----> Autonomous bladder causing continuous dribbling**

A spinal cord injury may interrupt communication between the nerves in the spinal cord that control bladder and bowel function and the brain, causing incontinence. This results in bladder or bowel dysfunction that is termed "neurogenic bladder" or "neurogenic bowel."

* **Left accessory hepatic artery arise from---->Left Gastric artery**

An accessory left gastric artery arising from the left hepatic artery is a variant gastric artery that supplies the cardia and fundus of the stomach

* **Mean is----> Sum of all values divided by total**

The "mean" is the "average" you're used to, where you add up all the numbers and then divide by the number of numbers

* **medial to Thyroid gland----> Recurrent laryngeal nerve**

The left recurrent laryngeal nerve arises from the vagus to the left of the arch of the aorta. It curves inferior to the aortic arch and ascends in the groove between the trachea and the esophagus. It relates to the medial surface of the lobe of the thyroid.

* **most common lobe involved in prostate carcinoma is?---->Posterior**

Adenocarcinoma of the prostate typically begins in the posterior lobe. The gland may be large, asymmetrical, or hard; or the cancer may be too small to palpate.

* **Most radiosensitive tumor---->Seminoma**

radiosensitive tumours
malignant lymphomas.
seminomas.
medulloblastoma.
neuroblastoma.
Wilm's tumour.
early cervical carcinoma.
vaginal carcinoma.
most head and neck tumours.

* **Muscle open mouth?---->Lateral pterygoid**

Muscles that depress the mandible and thus open the jaw include the anterior digastric, mylohyoid, and inferior head of the lateral pterygoid. Jaw-closer muscles consist of the masseter, temporalis, medial pterygoid, and superior head of the lateral pterygoid

* **Night blindness in due to deficiency of----> Retinol**

vitamin A deficiency can also lead to night blindness. Vitamin A, also called retinol, plays a role in transforming nerve impulses into images in the retina. The retina is a light-sensitive area in the back of your eye.

* **nucleus will activate to lose heat from the body:---->Anterior hypothalamus**

The anterior hypothalamic nucleus is a nucleus of the hypothalamus. Its function is thermoregulation (cooling) of the body. Damage or destruction of this nucleus causes hyperthermia

* **Organism in Surgery of Abdomen ----> Bacteroides fragilis**

Bacteroides fragilis is an obligately anaerobic, Gram-negative, rod-shaped bacterium. It is part of the normal microbiota of the human colon and is generally commensal, but can cause infection if displaced into the bloodstream or surrounding tissue following surgery, disease, or trauma.

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

neutrophils (PMNs) generate reactive oxygen species (ROS) during phagocytosis and in response to soluble agonists. This functional response, termed oxidative burst, contributes to host defense, but it can also result in collateral damage of host tissues.

* **pain in parotid region, is aggravated by chewing. nerve involved?---->Auriculotemporal**

The autonomic innervation controls the rate of saliva production. Sensory innervation is supplied by the auriculotemporal nerve (gland) and the great auricular nerve (fascia). The parasympathetic innervation to the parotid gland has a complex path. It begins with the glossopharyngeal nerve (cranial nerve IX)

* **Paraneoplastic Include---->Small cell Ca**

Small-cell lung cancer (SCLC) is an aggressive neuroendocrine subtype of lung cancer and is associated with paraneoplastic syndromes in about 20 to 40% of cases

* **part of nephron the most hypotonic urine will be present?---->DCT**

the ascending limb of Henle's loop is impermeable to water and permeable to electrolytes. The ascending limb of Henle passes filtrate into DCT. hence urine is hypotonic to DCT

* **Patient diagnosed with terminal ovarian cancer. Told you not to tell her family. what do you?---->Tell them nothing**

Principal of confidentiality and trust

* **Patient presented with blood values of pH. 7.52, HCO3 38.2, PCO2 31.----> Uncompensated metabolic alkalosis**

Metabolic alkalosis is primary increase in bicarbonate (HCO3−) with or without compensatory increase in carbon dioxide partial pressure (Pco2); pH may be high or nearly normal. Common causes include prolonged vomiting, hypovolemia, diuretic use, and hypokalemia.

* **Patient with abdominal bloating and foul smelling stools. Test?---->Stool D/R**

A stool analysis is a series of tests done on a stool (feces) sample to help diagnose certain conditions affecting the digestive tract

* **pituitary:----> Laterally to cavernous sinus**

Medially, the cavernous sinus is related to the pituitary gland and the sphenoid sinus. Laterally, it is related to the temporal lobe of the brain. The internal carotid artery and the abducens nerve pass through the cavernous sinus.

* **Post ganglionic sympathetic fibers are present in----> All spinal nerves**

preganglionic cells of the sympathetic nervous system are located between the first thoracic segment and third lumbar segments of the spinal cord. Postganglionic cells have their cell bodies in the ganglia and send their axons to target organs or glands.

* **post thyroidectomy. Hoarseness of voice. Damage to?---->Post Cricoarytenoid**

The arytenoids and cricoarytenoid joint are relatively fragile and vulnerable to injury during laryngoscopy. This can result in one of the most frequent post-anesthetic complaints, hoarseness, and also one of the most serious, airway compromise

* **Pregnant Lady (Amenorrhea of twenty weeks) presented with increased fundal height Change in uterus is---->Hypertrophy Plus Hyperplasia**

Myometrium is hormone sensitive and undergoes both hypertrophy (an increase in cell size) and hyperplasia (an increase in cell numbers) during pregnancy  progressively returning to its normal size (involution) in the weeks after delivery

* **Prostaglandins are secreted into semen by:
---->Seminal vesicles**

The secretion of the seminal vesicles constitutes the bulk of the seminal fluid (semen). It is a thick fluid that contains the sugar fructose, proteins, citric acid, inorganic phosphorus, potassium, and prostaglandins

* **psuedostratified epithelium ----> All cell reach basement membrane**

The term pseudostratified is derived from the appearance of this epithelium in section which conveys the erroneous (pseudo means almost or approaching) impression that there is more than one layer of cells, when in fact this is a true simple epithelium since all the cells rest on the basal lamina.

 **Pt with peptic ulcer has epigastric pain, the referred visceral pain is mediated by?----> Vagus nerve**

The cranial nerves that contain GVA fibers include the glossopharyngeal nerve (CN IX) and the vagus nerve (CN X). Generally, they are insensitive to cutting, crushing or burning; however, excessive tension in smooth muscle and some pathological conditions produce visceral pain (referred pain).

* **Pubic symphysis is:----> Secondary cartilaginous**

The pubic symphysis or symphysis pubis is the midline cartilaginous joint (secondary cartilaginous) uniting the superior rami of the left and right pubic bones. It is a nonsynovial amphiarthrodial joint connected by fibrocartilage, and may contain a fluid-filled cavity.

* **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.

* **Regarding Lymph node---->Drain tissue fluid**

Lymph is present throughout the body, and circulates through lymphatic vessels. These drain into and from lymph nodes – afferent vessels drain into nodes, and efferent vessels from nodes. When lymph fluid enters a node, it drains into the node just beneath the capsule in a space called the subcapsular sinus.

* **Right leg pain. Right leg cordotomy was performed which tract was involved---->Jeft lateral spinothalamic tract**

The spinothalamic tract consists of two adjacent pathways: anterior and lateral. The anterior spinothalamic tract carries information about crude touch. The lateral spinothalamic tract conveys pain and temperature. In the spinal cord, the spinothalamic tract has somatotopic organization.

* **soldier after retiring from Siachen presents to with complains of headache and peripheral cyanosis of his fingers. cause is?----> Secondary polycythemia**

Secondary polycythemia is the overproduction of red blood cells. It causes your blood to thicken, which increases the risk of a stroke. It's a rare condition. ... 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.

* **Suppuration in abscess is caused by---->Neutrophils**

The process of pus formation, called suppuration, occurs when the agent that provoked the inflammation is difficult to eliminate. Pus is a viscous liquid that consists mostly of dead and dying neutrophils and bacteria, cellular debris, and fluid leaked from blood vessels.

* **Tactile sensations from the finger Tips are detected by which receptors?---->Meissner**

Meissner's corpuscles, also known as tactile corpuscles, are found in the upper dermis, but they project into the epidermis. They are found primarily in the glabrous skin on the fingertips and eyelids. They respond to fine touch and pressure, but they also respond to low-frequency vibration or flutter

* **terminal ileum and ileocecal junction resection result in deficency of ---->Vit B12**

the end of the ileum has been removed, the intestines also cannot absorb bile acids secreted by the liver, which aid digestion and cannot absorb vitamin B12. Malabsorption causes diarrhea, typically beginning immediately after the surgery

* **The ground substance of Fibrocartilage has abundant of----> Collagen**

The matrix of cartilage is made up of glycosaminoglycans, proteoglycans, collagen fibers and, sometimes, elastin. ... Cartilage is composed of specialized cells called chondrocytes that produce a large amount of collagenous extracellular matrix, abundant ground substance that is rich in proteoglycan and elastin fibers.

* **Therapeutic and toxic side effect of Loop diuretics is?----> Low blood volume**

Adverse effects for loops diuretics typically occur from electrolyte imbalances secondary to the diuresis effects

* **thick yellow mucoid sputum, most likely organism.---->Staph pneumonia**
* **traffic accident& lost blood result in anemia type---->Normocytic normochromic anemia**

Normocytic normochromic Anemia due to excessive bleeding results when loss of red blood cells exceeds production of new red blood cells.

* **transmitted through Orofecal route?---->Hep E**

The hepatitis A and E virus, transmitted mainly by oro-fecal route

* **upper outer quadrant of the breast. lymphatic drainage ---->Pectoral axillary nodes**

The pectoral nodes, at the inferior border of the pectoralis minor, drain most of the breast. 3. The posterior, or subscapular, nodes, in the posterior axillary fold, drain the posterior shoulder.

* **Vitamin E activity---->Antioxidant Activity**

Vitamin E is fat-soluble and requires micellularization for absorption. It functions as a lipid-soluble biological antioxidant and protects against lipid peroxidation through the scavenging of free radicals

* **weight loss palpitations hypertension diarrhea what is your diagnosis?---->Hyperthyroidism**

Hyperthyroidism Symptoms

Appetite change (decrease or increase)

Difficulty sleeping (insomnia)

Fatigue.

Frequent bowel movement—perhaps diarrhea.

Heart palpitations.

Heat intolerance.

Increased sweating.

Irritability.

* **A diabetic with jaw draining abscess. Histological findings seen will be?---->Granuloma with Abscess (best among answers)**

The disease is characterised by the formation of an abscess and draining sinus tracts.

* **A young medical student already holding 3 books want to pick up a fourth book from the library. Upon holding the fourth book, she drops all the book. This is most likely due to?---->Inverse stretch reflex**

The Golgi tendon reflex (also called inverse stretch reflex, autogenic inhibition, tendon reflex) is an inhibitory effect on the muscle resulting from the muscle tension stimulating Golgi tendon organs (GTO) of the muscle, and hence it is self-induced.

* **abduction of upto 40 degree is by---->Supraspinatus**

The activity of the supraspinatus is higher than that of the deltoideus statistically for the range 0-40 degrees for abduction

* **abundant mucinous glands with few serous glands and also few ducts were seen. ----> Submandibular**

In submandibular gland, mucous acini comprise about 10% of acinar tissue; serous cells are frequently located at the periphery of mucous acini as. crescent shaped cells (arrow); striated ducts (arrowheads) are more prominent. and the intercalated ducts are shorter than those in the parotid gland.

* **AFP is raised in----> Anencephaly**

The AFP can also leak into the amniotic fluid from open neural tube defects such as anencephaly and myelomeningocele, in which the fetal blood stream is in direct contact with the amniotic fluid. The first step in prenatal screening is measuring the maternal serum AFP at 15-20 weeks' gestation

* **After cast is removed and his calf muscles show reduced muscle mass. This is----> Dec work load**

muscle atrophy in pop cast / dec. use

* **After surgery wound is not healing properly. he is taking diet rich in proteins and carbohydrate, reason of poor wound healing?----> Decrease tensile strength of wound**

As the phase progresses, the tensile strength of the wound increases. Collagen will reach approximately 20% of its tensile strength after 3 weeks, increasing to 80% by 12th week. The maximum scar strength is 80% of that of unwounded skin.Vitamin C plays a major role in the production of pro-collagen , the body's precursor to collagen. Therefore, getting enough vitamin C is critical. As you probably know, citrus fruits like oranges, grapefruit, lemons, and limes are full of this nutrient.

* **Amino acids which are Ketogenic?
---->Lysine + Leucine**

Leucine, lysine: only two amino acids which are ketogenic

* **Amoeba commonly resides in?---->Cecum**

Ameboma, a segmented mass of granulation tissue in the cecum or ascending colon, represents the hyperplastic granuloma related to amebic abscess in the bowel wall. Ameboma occurs in 0.5% to 1.5% of adults and children with intestinal amebiasis.

* **autosomal recessive disorder?---->Alpha-1 -antitrypsin deficiency**

Alpha-1 antitrypsin deficiency (AATD) is inherited in families in an autosomal codominant pattern. Codominant inheritance means that two different variants of the gene (alleles) may be expressed, and both versions contribute to the genetic trait. The M gene is the most common allele of the alpha-1 gene.

* **Bar body present in?---->Neutrophils**

A Barr body (see image) appears as a small drumstick-like projection on one of the lobes of some neutrophils in females.

* **Baroreceptor reflex increases ----> MAP**

An increase in the mean arterial pressure increases depolarization of these sensory endings, which results in action potentials. These action potentials are conducted to the solitary nucleus in the central nervous system by axons and have a reflex effect on the cardiovascular system through autonomic neurons.

* **bicep tendon reflex is absent .where the compression is---->C5-C6**

if the biceps and brachioradialis reflexes are normal, the triceps absent, and all lower reflexes (finger jerk, knee jerk, ankle jerk) hyperactive, the lesion would be located at the C6–C7 level, the level of the triceps reflex.Biceps reflex is a reflex test that examines the function of the C5 reflex arc and the C6 reflex arc

* **Boundaries of Posterior triangle of the neck---->Covered by investing layer of deep cervical fascia**

The Investing layer of deep cervical fascia is the most superficial part of the deep cervical fascia, and it encloses the whole neck. ... of posterior triangle of neck

* **Breast carcinoma T3 N2 M0---->lll-A**

Stage IIIA: The cancer of any size has spread to 4 to 9 axillary lymph nodes or to internal mammary lymph nodes. It has not spread to other parts of the body (T0, T1, T2 or T3, N2, M0). ... Metastatic cancer found when the cancer is first diagnosed occurs about 6% of the time.

* **Carotid and Aortic recptors get activated by----> Decreased 02**

A reduction in arterial blood O2 tension (Pao2) stimulates the chemoreceptors. The consequent increase in the number of impulses in the afferent nerve fibers from the carotid and aortic bodies stimulates the vasoconstrictor regions.

* **Cause of atheroma?---->Diastolic HTN**

Hypertensive vascular disease involves both large and small arteries as well as arterioles and is characterized by fibromuscular thickening of the intima and media with luminal narrowing of the small arteries and arterioles.

* **child history of burn got treatment after 24 hours he developed edema due to----> Endothelial retraction**

The endothelium acts as a permeability barrier and an active interface between blood and the underlying tissues. ... Without exception, burn injury will damage inter-endothelial junctional structures and lead to the leakage of macromolecules and fluid from the vessels.

* **Clavicle fracture at outer 1/3 & inner 2/3. Inner clavicle elevated by which muscle---->Sternocleidomastoid**

After fracture of the clavicle, the sternocleidomastoid muscle elevates the medial fragment of the bone. The trapezius muscle is unable to hold up the distal fragment owing to the weight of the upper limb, thus the shoulder droops.

* **Common Hepatitis in Asia with less complications---->Hep A**

Hepatitis A is the most common vaccine-preventable disease in travelers

* **Correct about Supra renal gland---->Supplied by Thoracic sympathetic trunk**

The fibers which make up the adrenal plexus are derived from the splanchnic nerve, the sympathetic trunk, the coeliac ganglion, the vagus nerve, and sometimes the phrenic nerve. pathway to the adrenal gland.

* **CXR show gut loops in left side of the pleural cavity. What is the likely cause?---->Pleuroperitoneal defect**

Congenital pleuroperitoneal diaphragmatic hernia is a rare condition caused by a defect in the dorsolateral diaphragm. Defects of the left crus of the diaphragm could result in the herniation of the stomach into the thoracic cavity with possible subsequent tension gastrothorax

* **Damage to basal ganglia will lead to---->Abnormal involuntary movements**

Damage to the basal ganglia cells may cause problems controlling speech, movement, and posture. This combination of symptoms is called parkinsonism. A person with basal ganglia dysfunction may have difficulty starting, stopping, or sustaining movement.

* **damaged in incision on Mc’burney’s point ----> Iliohypogastric nerve**

The iliohypogastric and ilioinguinal nerves. ... If either of these nerves is trapped during suturing of the abdominal layers, especially after inguinal hernia repair and appendectomy typical nerve irritation in the inguinal region is observed.The ilioinguinal and iliohypogastric nerves were found to be 6.69 mm and 12.08 mm from the anterior superior iliac spine, respectively.

* **Deep palmar arch is formed by?---->Radial artery**

The deep palmar arch (deep volar arch) is an arterial network found in the palm. It is usually formed mainly from the terminal part of the radial artery, with the ulnar artery contributing via its deep palmar branch, by an anastomosis.

* **Direct inguinal hernia lies---->Medial to inferior epigastric vessels**

Direct inguinal hernias occur medial to the inferior epigastric vessels when abdominal contents herniate through a weak spot in the fascia of the posterior wall of the inguinal canal, which is formed by the transversalis fascia.

* **DOC in Pseudomonas UTI---->Ceftazidime**

FirstAID=ciprofloxacin, medscame = ceftazidim

* **drugs will have maximum oral bioavailability---->Largely hydrophobic, yet soluble in aqueous solutions**

drugs that are largely hydrophobic, yet have aqueous solubility have greater oral bioavailability because they are readily absorbed

* **During Exercise blood flow to which organ decreases?---->Splanchnic**

Exercise reduces splanchnic blood flow, but the mesenteric contribution to this response is uncertain. ... During submaximal exercise in humans, splanchnic resistance increases and blood flow is reduced following a 50% reduction in the hepato-splenic and a 25% reduction in the mesenteric blood flow.

* **During lumbar puncture CSF is drained from?----> Subarchanoid space**

Lumbar puncture is carried out under sterile conditions by inserting a needle into the subarachnoid space, usually between the third and fourth lumbar vertebrae

* **Effect of norepinephrine on heart?----> Increase in rate of SA node depolarization**

NE also acts on β-1 receptors in the myocardium, resulting in a mild increase in myocardial contractility and myocardial oxygen requirements. However, NE has minimal effect on cardiac output and heart rate as the increase in afterload from α-1 stimulation results in a reflex bradycardia

* **Energy expenditure in inspiration---->0.05**
* **Enzymes act by?---->Decreasing the activation energy**

Like all catalysts, enzymes increase the reaction rate by lowering its activation energy.

* **Epiploic foramen is bounder inferiorly by?----> 1st part of duodenum**

Boundaries. It has the following borders: anterior: the free edge of the lesser omentum, known as the hepatoduodenal ligament; there are two layers and within these layers are the common bile duct, hepatic artery proper, and portal vein. posterior: the peritoneum covering the inferior vena cava.

* **factor deficiency that causes coagulation rather than bleeding
----> Factor 5**

Factor V deficiency is also known as Owren's disease or parahemophilia. It's a rare bleeding disorder that results in poor clotting after an injury or surgery. Factor V deficiency shouldn't be confused with factor V Leiden mutation, a much more common condition that causes excessive blood clotting.

* **Factor increase renin----> Sympathetic stimulation via renal nerve**

Renal sympathetic nerve stimulation increases renin release. ... However, the vasoconstriction of the afferent arteriole through α-adrenergic receptors also lowers the pressure in the glomerulus and sensitizes the intrarenal baroreceptor, causing increased renin secretion for a given reduction in arterial pressure.

* **Fecal incontinence----> Damage to external anal sphinctj**

Fecal incontinence may occur because of: Muscle or nerve damage. Sensory nerve damage to the rectum or sphincter muscles can cause loss of control over bowel movements

* **Femoral hernia gets strangulated due to---->Narrow neck of sac**

Strangulation can happen in all hernias, but is more common in femoral and inguinal hernias due to their narrow "necks".

* **Function of sertoli cells?----> Aid in spermiogenesis**

Sertoli cells keep the germ cells that start the process healthy and nourished. They also function at the end of spermatogenesis by absorbing extra cytoplasm from newly created spermatozoa, just prior to their release into the lumen of the seminiferous tubule

* **G-protein phospholipase-C results in---->IP3**

Phospholipase C is an enzyme that hydrolyzes plasma membrane phospholipids at the ester bond of the third position of the glycerol backbone, liberating 1,2-diacylglycerol and a water-soluble phosphorylated headgroup

* **HB formed by Yolk Sac?---->Gower**

It has long been known that yolk sac–derived primitive erythrocytes undergo a partial hemoglobin (Hb) switch: At week 5, yolk sac erythroblasts synthesize primarily Hb Gower I (ζ2ϵ2), but at weeks 6 to 8, they also synthesize large amounts of Hb Gower II (α2ϵ2).

* **HCO3 absorption occurs in which part of the nephron?----> PCT and collecting**

In the proximal tubule (convoluted and straight portions) approximately 90 per cent of the filtered load of HCO3- is reabsorbed. This occurs without the development of large lumen-to-blood pH gradients.

**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 limited mobility and flexibility.

* **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. Mental health issues

* **In embryo Primordial germ cells are formed at
---->3rd week**

Primordial germ cells, the earliest recognizable precursors of gametes, arise outside the gonads and migrate into the gonads during early embryonic development. Human primordial germ cells first become readily recognizable at 24 days after fertilization in the endodermal layer of the yolk sac

* **Inc in no. Of mitochondria by---->Self-Replication**

Mitochondria divide by binary fission, similar to bacterial cell division. The regulation of this division differs between eukaryotes

* **Inferior Thyroid artery is branch of.---->Thyrocervical trunk**

The inferior thyroid artery is a branch of the thyrocervical trunk (85%) or subclavian artery (15%) and ascends to enter the thyroid gland on its posterior surface, as well as supplying both the superior and inferior parathyroid glands 1.

* **Injection in gluteal can damage to---->Superior gluteal nerve**

Injury to the superior gluteal nerve can happen due to dislocation of the hip joint, hip fractures, repair of hip fractures, and also intramuscular injection in the buttocks

* **Internal body environment is regulated by?----> Negative feedback mechanisrp**

Negative feedback loops are used to maintain homeostasis and achieve the set point within a system. Negative feedback loops are characterized by their ability to either increase or decrease a stimulus, inhibiting the ability of the stimulus to continue as it did prior to sensing of the receptor

* **LCX (Left Circumflex Artery) block area affected---->Left atrium + left ventricle**

The circumflex artery branches off of the left coronary artery and supplies most of the left atrium: the posterior and lateral free walls of the left ventricle, and part of the anterior papillary muscle. The circumflex artery may give off a variable number of left marginal branches to supply the left ventricle

* **main objective of Screening test for Cancer----> Early Diagnosis**

Cancer screening aims to detect cancer before symptoms appear. This may involve blood tests, urine tests, DNA tests other tests, or medical imaging. The benefits of screening in terms of cancer prevention, early detection and subsequent treatment must be weighed against any harms

* **Most common feature of carpel tunnel syndrome---->Wasting of thenar muscles**

Compression of the median nerve as it runs deep to the transverse carpal ligament (TCL) causes atrophy of the thenar eminence, weakness of the flexor pollicis brevis, opponens pollicis, abductor pollicis brevis, as well as sensory loss in the digits supplied by the median nerve.

* **Most common Pituitary tumor cells----> Acidophils**
* **Muscle have ---->Desmin**

Desmin is a 53.5 kD protein composed of 470 amino acids. ... Desmin is a subunit of intermediate filaments in cardiac muscle, skeletal muscle and smooth muscle tissue

* **On 2nd day of life breast feeding baby present with jaundice indirect bilirubin 8.5 mg/dL, total bilirubin is 9 mg/dL, what is diagnosis?---->Physiological jaundice**

About 30-40% of breastfed infants are expected to have bilirubin levels greater than or equal to 5mg/dL with about 2-4% of exclusively breastfed infants having bilirubin levels above 10 mg/dL in week 3 of life

* **ovarian cancer Tumor marker will be---->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.

* **Parotid duct opens at---->Upper 2nd Molar**

The parotid duct, a long excretory duct, emerges from the front of each gland, superficial to the masseter muscle. The duct pierces the buccinator muscle, then opens into the mouth on the inner surface of the cheek, usually opposite the maxillary second molar

* **Patient had RTA then loss of skin sensation on lateral side of arm---->Axillary nerve**

Axillary nerve palsy is a neurological condition in which the axillary (also called circumflex) nerve has been damaged by shoulder dislocation. It can cause weak deltoid and sensory loss below the shoulder. Since this is a problem with just one nerve, it is a type of Peripheral neuropathy called mononeuropathy.The axillary nerve also carries sensory information from the shoulder joint, as well as the skin covering the inferior region of the deltoid muscle - the "regimental badge" area (which is innervated by the superior lateral cutaneous nerve branch of the axillary nerve).

* **Patient having ST elevation n Lead 2 and complete heart block vessel involved---->RCA**

An inferior myocardial infarction results from occlusion of the right coronary artery (RCA). This can cause a ST elevation myocardial infarction or a non-ST segment elevation myocardial infarction.

* **Patient with decrease neutrophils. Increase lymphocytes and eosinophils. Increased ACTH level. Diagnosis?----> Addison’s Disease**

 blood picture show lymphocytosis and neutropenia

* **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. The elevation in arterial pressure secondary to renal disease can be viewed as an attempt by the kidney to increase renal perfusion and restore glomerular filtration.

* **Popliteal Lymph node enlarged .Infection primary site most probably will be----> Lateral side of foot**

Popliteal lymph node drains the region from which this vein derives its tributaries, such as superficial regions of the posterolateral aspect of the leg and the plantar aspect of the foot

* **Prostatic cancer metastasize to:---->Vertebrae**

About 80 percent of the time prostate cancer cells metastasize, or spread, they will spread to bones, such as the hip, spine, and pelvis bones. It can be by direct invasion or by traveling through your blood or lymphatic system

* **Pt presented with severe trauma and he has lost huge blood what can be given emergency situation?----> Blood O-**

Trauma patients receive emergency transfusions of unmatched Type O Rh-negative (Rh-) blood until matched blood is available.

* **Regarding Bronchopulmonary segment:----> Aerated by tertiary bronchus**

Each of the tertiary bronchi serves a specific bronchopulmonary segment. These segments each have their own artery. Thus, each bronchopulmonary segment is supplied by a segmental bronchus, and two arteries, a pulmonary artery and a bronchial artery which run together through the center of the segment

* **right sided weakness in ipsilatral limb and deviation of angle of mouth to the left while talking. lesion?----> Internal capsule**

Lesions result in a contralateral hemiparesis or hemiplegia.

* **stab wound 3 cm vertical on lateral right side of linea alba. vessel is damaged?----> IVC**
* **Superior mesenteric vein and splenic vein join to form portal vein at ----> Behind neck of pancreas**

The portal vein is formed by the union of the splenic vein and the superior mesenteric vein, posterior to the neck of the pancreas, at the level of L2. As it ascends towards the liver, the portal vein passes posteriorly to the superior part of the duodenum and the bile duct.

* **tall T waves on ECG
---->Hyperkalemia**

Early ECG changes of hyperkalemia, typically seen at a serum potassium level of 5.5-6.5 mEq/L, include the following:
Tall, peaked T waves with a narrow base, best seen in precordial leads.
Shortened QT interval.
ST-segment depression

* **The best parameter for fluid resuscitation in hypovolemic shock is?----> Increase in urine output**

The actual end point of fluid therapy in shock is to optimize tissue perfusion. Adequate end-organ perfusion is best indicated by urine output of > 0.5 to 1 mL/kg/hour.

* **The first pass metabolism of a drug can be avoided if given via?---->Sublingual**

Absorption is very quick, and higher drug levels are achieved in the bloodstream by sublingual routes than by oral routes because (1) the sublingual route avoids first-pass metabolism by the liver , and the drug avoids destruction by gastric juices or complexation with foods.

* **The internal anal sphincter receives its nerve supply from the ----> Hypogastric plexuses.**

The superior hypogastric plexus along with the left and right inferior hypogastric plexus and pelvic plexus forms the hypogastric plexus that innervates the uterus, prostate, bladder, rectum, and perineum.

* **The muscle which increase the transverse and anteroposterior diameter of thorax is----> External Intercostal**

Contraction of the external intercostals raises the lateral part of the ribs causing a bucket handle motion that increases the transverse diameter of the thorax. The vertebrosternal ribs also follow a pump handle motion, which raises sternum and increases the anterior-posterior dimensions of the thorax

* **Traotbs Solitarius is formed by?----> 2nd order neurons**

Schematic presentation of the basic organization of brain stem reflex networks for autonomic cardiovascular control. Afferents enter the nucleus tractus solitarius (NTS) to contact second order NTS neurons that have either myelinated, A-type, or unmyelinated, C-type, axons.

* **trauma with bleeding of 2L. The initial response to injury is?---->Vasoconstriction**
* **Type of hypersensitivity reaction in myasthenia gravis is?----> Type II**

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

* **Ulcer caused by anaerobic staphylococcus---->Venous**
* **unequal BP reading in both the arms. visible intercostal pulsation and X-ray shows notching of ribs. Diagnosis?----> Post ductal aortic coarctation**

aortic narrowing, is a congenital condition whereby the aorta is narrow, usually in the area where the ductus arteriosus (ligamentum arteriosum after regression) inserts. Preductal coarctation: The narrowing is proximal to the ductus arteriosus. Blood flow to the aorta that is distal to the narrowing is dependent on the ductus arteriosus; therefore severe coarctation can be life-threatening. Preductal coarctation results when an intracardiac anomaly during fetal life decreases blood flow through the left side of the heart, leading to hypoplastic development of the aorta. This is the type seen in approximately 5% of infants with Turner syndrome.[4][5]
Ductal coarctation: The narrowing occurs at the insertion of the ductus arteriosus. This kind usually appears when the ductus arteriosus closes.
Postductal coarctation: The narrowing is distal to the insertion of the ductus arteriosus. Even with an open ductus arteriosus, blood flow to the lower body can be impaired. This type is most common in adults. It is associated with notching of the ribs (because of collateral circulation), hypertension in the upper extremities, and weak pulses in the lower extremities. Postductal coarctation is most likely the result of the extension of a muscular artery (ductus arteriosus) into an elastic artery (aorta) during fetal life, where the contraction and fibrosis of the ductus arteriosus upon birth subsequently narrows the aortic lumen

* **Uterus cancer travels to labia majora through which route---->Round ligament**

During this process, 2 layers of peritoneum join together enveloping the pelvic organs, which is then known as the broad ligament. ... They connect to the anterior horns of the uterus and travel anteriorly in the pelvis to the deep inguinal rings where they move through the inguinal canal and attach to the labia majora

* **when he stands on his left leg his right hip sinks down. Lesion is at which level?----> Left gluteus minimus paralysis**

The Trendelenburg gait, named after Friedrich Trendelenburg, is an abnormal gait (as with walking) caused by weakness of the abductor muscles of the lower limb, gluteus medius and gluteus minimus. People with a lesion of superior gluteal nerve have weakness of abducting the thigh at the hip.
This type of gait may also be seen in L5 radiculopathy and after poliomyelitis, but is then usually seen in combination with foot drop.

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