

**GoldStandard FCPS:**

**Radiology**

**19November 2019 afternoon** 

**(Errors and omissions excepted)**

**Cram Statements**

* **acute leg pain while running. Next day noticed ecchymosis around ankle. can stand on his toes though it is painful. ------>Rupture Plantaris tendon**

Commonly called Tennis leg, a tear or rupture of the plantaris involves the plantaris muscle and possibly the medial head or inside of the gastrocnemius muscle which is the larger of the two calf muscles. Injuries are usually the result of a sudden muscular action such as reaching out for a tennis shot.

* **adverse effect of diazepam used during labor is?------>Neonatal hypotonia**

Diazepam should be avoided, or the dosage tapered, in the weeks before delivery, if possible, because it may cause neonatal withdrawal syndrome, floppy infant syndrome, or various acute toxic effects in the newborn

* **after fall from height ,,,, short left leg rotated laterally. Diagnosis?------>Femur neck fracture**

The affected leg is externally rotated and may be shortened. The extremity shortening occurs because the muscles acting on the hip joint depend on the continuity of the femur to act, and when this continuity is disrupted, the result is a shorter-appearing leg

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

If biceps reflex is absent lesion will be at C5 C6

* **bronchopulmonary segment:------>Supplied by segmental bronchus with terminal branch of artery**

A bronchopulmonary segment is a portion of lung supplied by a specific segmental bronchus and arteries. These arteries branch from the pulmonary and bronchial arteries, and run together through the center of the segment.

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

Pus consists of a thin, protein-rich fluid, historically known as liquor puris, and dead leukocytes from the body's immune response (mostly neutrophils

* **chronic carrier if he has HBsAg:------>For more than 6 month**

People who test positive for the hepatitis B virus for more than six months (after their first blood test result) are diagnosed as having a chronic infection. This means their immune system was not able to get rid of the hepatitis B virus and it still remains in their blood and liver.

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

Adenocarcinoma of the prostate typically begins in the posterior lobe

* **develops sore throat. 2 weeks, later developed generalized body Edema, diagnosis is?------>Acute post streptococcal glomerulonephritis**

Acute post streptococcal glomerulonephritis is an immunologic response of the kidney to infection, characterized by the sudden appearance of edema, hematuria, proteinuria and hypertension . It is essentially a disease of childhood that accounts for approximately 90% of renal disorders in children.

* **diet comprises of rice and fish mostly. pallor and loss of touch sensation on both feet MCV: 140 Most likely parasite is?------>Diphyllobothrium latum**

The pernicious anemia caused by the fish tapeworm, Diphyllobothrium latum, is described. ... The pathogenesis of the tapeworm anemia has been studied in clinical tests by microbiological methods and with the use of radioactive vitamin B12. D. latum contains considerable amounts of vitamin B12.

* **Doppler studies confirmed DVT. factor responsible ------>Venous stasis**

It is now accepted that the combination of stasis and hypercoagulability, much more than endothelial damage, is crucial for the occurrence of VTE

* **episodes of jaundice with unconjugated hyper bilirubin levels 45. Diagnosis is?------>Gilbert syndrome**

Gilbert syndrome is a benign condition characterized by sporadic episodes of asymptomatic jaundice due to a mild indirect hyperbilirubinemia caused by a deficiency in bilirubin glucoronidation

* **Fibrocartilage:------>Abundant Collagen**

Fibrous cartilage has lots of collagen fibers (Type I and Type II), and it tends to grade into dense tendon and ligament tissue

* **fracture of neck of femur occurred. delayed complication?------>Avascular necrosis**

Complications include delayed union, nonunion, refracture, osteonecrosis, and avascular necrosis. With latter being more common in old age

* **fractures his medial epicondyle of humerus resulting in damage to nerve. Sensation in which area would be affected?------>Distal and palmer aspect of medial 1 /3rd of hand**

Ulnar nerve supply the 3rd and 4th lumbricals and all the palmar interossei muscles and dorsal interossei of the hand. It terminates by supplying the adductor pollicis.

* **has swelling above and below the inguinal ligament which disappears on lying down. diagnosis is?------>Saphenous varix**

A saphena varix is a dilatation at the top of the long saphenous vein due to valvular incompetence. It may reach the size of a golf ball or larger. The varix is: soft and compressible. disappears immediately on lying down

* **important regarding dead space?------>Conditioning of inhaled air**

Dead space is the volume of air that is inhaled that does not take part in the gas exchange, because it either remains in the conducting airways or reaches alveoli that are not perfused or poorly perfused. In other words, not all the air in each breath is available for the exchange of oxygen and carbon dioxide.

* **increased amniotic fluid. AFP is raised. Likely diagnosis is?------>Anencephaly**

At 16-18 weeks of pregnancy 88% of cases of anencephaly, 79% of cases of open spina bifida, and 3% of unaffected singleton pregnancies had A.F.P. levels equal to or greater than 2-5 times the median for unaffected singleton pregnancies

* **lies posterior to cerebral aqueduct in midbrain?------>Tectum**

Tectum – located posterior to the cerebral aqueduct the dorsal side of the midbrain

* **lymphoid structure drain in Jugulo-diagastric lymph nodes
------>Palatine tonsil**

The palatine tonsils drain to the jugulodigastric node, a node of the deep cervical lymph nodes, located inferior to the angle of the mandible.

* **Main pillar of medial longitudinal arch
of foot is?
------>Talus**

The medial arch is the higher of the two longitudinal arches. It is formed by the calcaneus, talus, navicular, three cuneiforms and first three metatarsal bones.

* **mucosa is normal for the distal esophagus?
------>Non-keratinized, stratified, squamous epithelium**

Except for a short segment of columnar epithelium in the distal esophagus at the gastroesophageal junction, the normal esophageal epithelium is a tough, nonkeratinizing, stratified, squamous epithelium.

* **mucosa of the distal esophagus?------>Non-keratinized, stratified, squamous epithelium**

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* **pain in big toe and loss of movements of metatarsophalangeal joint. test ------>Synovial fluid analysis**

the first symptom of gout is excruciating pain and swelling in the big toe – often following a trauma. Diagnosis requores synovial fluid examination of monosodium urate crystals

* **passing cola-colored urine for the last one day, history of using antimalarial. Diagnosis is?------>G6PD**

Acute and chronic malaria can cause anemia. When severe G6PD deficiency complicates malaria infection, treatment with primaquine or dapsone can lead to life-threatening acute intravascular hemolysis followed by anemia and acute renal failure

* **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. PBC is seen primarily in middle-aged women, and in those afflicted with other autoimmune diseases

* **presented with rigors and chills, high grade fever and not responding to treatment for more than 2 weeks. Diagnosis is? (poor recall)------>Acute pyelonephritis**

Symptoms & Causes of Kidney Infection (Pyelonephritis)

chills.

fever.

pain in your back, side, or groin.

nausea.

vomiting.

cloudy, dark, bloody, or foul-smelling urine.

frequent, painful urination

* **severe pain on the tip of the right shoulder after liver biopsy. mediated by which of the following nerves?------>Right phrenic**

Approximately 25% of patients experience pain in the right upper quadrant or right shoulder after liver biopsy due to pain traveling along the phrenic nerve

* **shrugging shoulders. nerve damaged is?------>Accessory nerve**

The spinal accessory nerve originates in the brain and enables motion in the trapezius and sternomastoid muscles in the neck. A spinal accessory nerve injury can be caused by trauma or damage during surgery, resulting in shoulder pain, "winging" of the shoulder blades and weakness of the trapezius muscle

* **suffering from carcinoma of prostate, spread of this tumor through?------>Internal vertebral plexus of veins**

The prostatic venous plexus drains into the internal iliac vein which connects with the vertebral venous plexus, this is thought to be the route of bone metastasis of prostate cancer.

* **Superficial epigastric artery is a
branch of?
------>Femoral artery**

The superficial epigastric artery is a branch of the femoral artery. It ascends over the inguinal ligament near its center

* **tumour in the posterior mediastinum compresses ------>Descending thoracic aorta**

The posterior mediastinum is comprised of the descending thoracic aorta, the esophagus, thoracic duct, paravertebral autonomic chain

* **undescended testes is at risk of ------>Neoplasia**

An undescended testicle is more likely to form a tumor than a normally descended testicle. The undescended testicle may be more at risk for injury or testicular torsion.

* **upper limb is paralised and there is 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.

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

Most (75-90%) of the lymphatic drainage of the breast is to the ipsilateral (same side) axillary nodes. Nearly all lymphatics of the breast drain along a subdermal plane into the axillae, typically collecting in a single sentinel lymph node at the lateral border of the pectoralis major muscle.

* **16T Sympathetic supply of lower airways is from?------>T1-T2**

Nerves originating from the spinal cord also innervate the airways with (4) sensory neurons originating from the dorsal root ganglia in thoracic vertebrae T1 to T4 which innervate the lower airways and bronchi

* **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

**A 6 months pregnant last with generalized weakness and lethargy presents with Hb 9.8, MCV 58, MCH 15 and serum ferritin 150 mcg/L. cause of anemia?------>Thalassemia trait**

* **A fisherman from sea travelling from the past 6 months develop bleeding gums.
Cause?
------>VitC**

Scurvy is a disease resulting from a lack of vitamin C (ascorbic acid). Early symptoms of deficiency include weakness, feeling tired and sore arms and legs. Without treatment, decreased red blood cells, gum disease, changes to hair, and bleeding from the skin may occur

**A patient is called chronic carrier if he has HBsAg:------>For more than 6 month**

HBsAg may remain detectable for life in many patients. Individuals who have positive findings for HBsAg are termed carriers of HBV. They may be inactive carriers or they may have chronic hepatitis. Anti-HBc is present in all patients with chronic HBV infections. HBeAg and HBV DNA may or may not be present.

* **A smoker working in a plastic factory. Diagnosed as bladder Ca. cause?------>Smoking**

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.

* **Abnormal metabolism of which amino acid results in formation of stone as an end product?------>Lysine/Cystine**
* **Absent P waves on ECG occurs in?------>Nodal rhythm**

When faster, it is referred to as an accelerated junctional rhythm. Because the electrical activation originates at or near the AV node, the P wave is frequently not seen; it can be buried within the QRS complex, slightly before the QRS complex or slightly after the QRS complex

* **adverse effect of drug, ------>Variable**
* **alcoholic patient, episode of fits. CSF protein 40, glucose 70 (plasma 120) no inflammatory cells, rest was normal. Organism ------>HSV**

Encephalitis is caused by the herpes simplex virus.

* **All the short muscles of hand are supplied by?------>T1**

The muscles intrinsic to the hand are those of the thumb (thenar muscles) and of the little finger (hypothenar muscles), the palmar and dorsal interossei, and the lumbricals. They are supplied by the median and ulnar nerves, which carry fibers of the T1 segment of the spinal cord.

* **An old man presented with complains of testicular swelling.
Labs show increased LDH. Diagnosis?
------>Testicular lymphoma**

Primary testicular lymphoma (PTL) is a rare but aggressive malignant tumor. It shows elevated serum LDH levels

* **Anterior dislocation of shoulder joint causes injury to------>Axillary artery**

Injury to the axillary artery following anterior shoulder dislocation is a rare disorder and must be suspected, especially, in the elderly or those with recurrent dislocation

* **Axillary nerve is most commonly damage in?------>Shoulder joint dislocation**

It passes with the posterior circumflex humeral vessels through the quadrilateral space from the anterior to posterior aspect of the shoulder. ... Whilst all nerves of the brachial plexus are at risk of injury during glenohumeral dislocation, the most commonly injured is the axillary nerve.

* **Bicomuate uterus is associated with
------>Kidney**

A bicornuate uterus is a type of congenital uterine malformation or müllerian duct anomalies in which the uterus appears to be heart-shaped. Congenital absence of one kidney is the most frequent renal tract malformation in women with Müllerian duct anomalies. .

* **Biopsy intestine show villous atrophy and gluten free diet doesn’t improve his symptoms. diagnosis?------>Giardiasis**

Biopsy findings amd diarrhea suggest infections with giardia lambia. Intestinal biopsy shows flattened, mild lymphocytic infiltration and trophozoites on the surface. Biopsy specimens from duodenum are often teeming with sickle-shaped Giardia trophozoites, which are tightly bound by the concave attachment disc to the villus surface of the intestinal epithelial cells.

* **Bitemporal hemianopia and infertility. cause?------>Prolactinoma**

Bitemporal hemianopsia most commonly occurs as a result of tumors located at the mid-optic chiasm. Since the adjacent structure is the pituitary gland, some common tumors causing compression are pituitary adenomas and craniopharyngiomas.Prolactinoma is the definitive diagnosis due to infertility

* **Bronchogenic carcinoma is caused by ------>CMV**
* **bronchopulmonary segments are in lower, middle and upper lobe of right lung respectively------>5,2,3**

There are ten bronchopulmonary segments in the right lung: three in the superior lobe, two in the middle lobe, and five in the inferior lobe

* **Calcitonin is released in which malignancy?------>Thyroid**

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

* **carcinoma of prostate spread by------>Internal vertebral plexus of veins**

The prostatic venous plexus drains into the internal iliac vein which connects with the vertebral venous plexus, this is thought to be the route of bone metastasis of prostate cancer.

* **Cause of death in gas gangrene is?------>Toxemia**

Gas gangrene can cause myonecrosis (muscle tissue death), gas production, and sepsis. Progression to toxemia and shock is often very rapid. It can easily be noticed by the large, blackened sores that form, as well as a degree of loud and distinctive crepitus caused by gas escaping the necrotic tissue.

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

Infection of the wound triggers the body's immune response, causing inflammation and tissue damage, as well as slowing the healing process. Many infections will be self-contained and resolve on their own, such as a scratch or infected hair follicle.

* **Cerebellum is connected to midbrain via?------>Superior cerebellar peduncle**

The cerebellum is connected to the brain stem by three peduncles. The middle peduncle is, by far, the largest of the peduncles, connecting the pons to the cerebellum. The inferior peduncle connects the medulla to the cerebellum, while the superior peduncle connects the cerebellum to the midbrain.

* **Characteristics sign of penicillin allergy is?------>Bronchospasm**

The acute allergic reaction arises immediately or rapidly within minutes to an hour or two and includes sudden anaphylaxis with hypotension, bronchospasm, angioedema and urticaria.

* **childhood tumor with gene amplification?------>Neuroblastoma**

Neuroblastoma, a highly malignant childhood tumor of the sympathetic nervous system, is frequently characterized by MYCN gene amplification and high expression of MYCN and c-MYC signature genes

**compound fracture of femur with laceration on thigh. some serosanguinous fluid was oozing from suture site .Cause is?------>Foreign body**

Necrotic tissue and foreign bodies in the wound both prolong the inflammatory response and increase risk of infection. Meticulous debridement is the best way to remove these obstacles to wound healing. Infection slows wound healing by prolonging inflammation, encouraging wound dehiscence, and increasing scarring

* **condition is related to lymphatics?------>Cystic hygroma**

A cystic hygroma is a fluid-filled sac that results from a blockage in the lymphatic system . It is most commonly located in the neck or head area, but can be located anywhere in the body. .

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

cross bridges of sarcomere in skeletal muscle are made up of myosin.

* **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 lungs.

* **Dermatome below clavicle but above sternoclavicular joint?------>C3-C4**

C3 - In the supraclavicular fossa, at the midclavicular line. C4 - Over the acromioclavicular joint

* **developed double vision.right eye, when at rest, was turned medially. anatomical structures involved are?------>Lateral rectus and Abducent nerve**

Typical features of a lateral rectus palsy include: Sudden onset of horizontal double vision, which is worse when the patient looks to the affected side. Limited outward movement of the affected eye. Patients often compensate for this by turning their head to the affected side

* **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

* **disease in penile cancer------>Phimosis**

Phimosis , the inability to retract the foreskin over the glans, has been found in 25-60% of patients with penile cancer

* **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, ------>Increase stroke volume**

During exercise, the cardiac output increases more than the total resistance decreases, so the mean arterial pressure usually increases by a small amount. ... The cardiac output increase is due to a large increase in heart rate and a small increase in stroke volume

* **During meiosis abnormalities may occur if one of the cell gets an extra chromosome instead of haploid number. condition is ------>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

* **Dysplasia is mainly seen in?------>Epithelium**

Epithelial dysplasia, a term becoming increasingly referred to as intraepithelial neoplasia, is the sum of various disturbances of epithelial proliferation and differentiation as seen microscopically. Individual cellular features of dysplasia are called epithelial atypia.

* **end arteries?------>Central retinal artery**

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

* **factor for the repair of vascular endothelium is produced by? ------>Platelets**

One of the most important proangiogenic mediators is vascular endothelial growth factor (VEGF or VEGF-A), and sufficient VEGF levels are believed to be essential for proper wound healing.VEGF is produced by platelets

* **Feature of dysplasia?------>Loss of polarity and architecture**

Architectural features of dysplasia include: Irregular epithelial stratification, loss of normal stratification and polarity, drop shaped rete ridges. Mitoses in the mid and upper epithelium, premature keratinization in single cells (dyskeratosis), basal cell hyperplasia and anaplasia, keratin pearls within rete pegs

* **formation of Pelvic diaphragm?
------>Puborectalis**

The deep pelvic floor muscles consist of pubococcygeus, ileococcygeuys, coccygeus and puborectalis muscles

* **Free radicles are removed by?------>Transferrin**

Essentially all circulating plasma iron normally is bound to transferrin. This chelation serves three purposes: it renders iron soluble under physiologic conditions, it prevents iron-mediated free radical toxicity, and it facilitates transport into cells.

* **furuncle on tip of nose, high fever with redness and swelling of eye------>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.Symptoms of cavernous sinus thrombosis may include:

Severe headache often accompanied by tearing.

Swelling, redness, or irritation around one or both eyes.

Drooping eyelids.

Inability to move the eye.

High fever.

Pain or numbness around the face or eyes.

Fatigue.

* **gestational age 34 week has a symphysio fundal height of 28 weeks. cause?
------>IUGR**

A fundal height that measures smaller or larger than expected — or increases more or less quickly than expected — could indicate conditions such as: Slow fetal growth (intrauterine growth restriction) A significantly larger than average baby (fetal macrosomia) Too little amniotic fluid (

* **Gitelman syndrome is a defect in ------>DCT**

The disorder is caused by genetic mutations resulting in improper function of the thiazide-sensitive sodium-chloride symporter (also known as NCC, NCCT, or TSC) located in the distal convoluted tubule of the kidney.

* **Growth factors receptors located at?------>Cell Membrane**

Growth factor receptors are present in the plasma membrane of resting cells as monomers or (pre)dimers. Ligand binding results in higher-order oligomerization of ligand–receptor complexes.

* **Heart muscles works as syncytium due to?------>Gap junction**

A gap junction forms channels between adjacent cardiac muscle fibers that allow the depolarizing current produced by cations to flow from one cardiac muscle cell to the next. ... This network of electrically connected cardiac muscle cells creates a functional unit of contraction called a syncytium.

* **His knee is hot, tender & swollen. leukocytes 77,000/mm3 diagnosis is?
------>Acute Gout**

The presence of uric acid crystals in the synovial fluid indicates gout. A white blood cell count that is higher than normal may indicate infectious arthritis, gout, or rheumatoid arthritis.

* **HLA B27 is associated with?------>Ankylosing Spondylitis**

The presence of HLA-B27 is associated with certain autoimmune and immune-mediated diseases, including: ankylosing spondylitis, which causes inflammation of the bones in your spine. reactive arthritis, which causes inflammation of your joints, urethra, and eyes, and sometimes lesions on your skin.

* **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.

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* **immediate effect of the body to lose heat?------>Cutaneous vasodilations**

cutaneous vasodilation during heat stress promotes heat transfer from body core to skin and compliments evaporative heat loss

* **in anatomical snuff box 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

* **In anterior duodenal perforation, the contents will go into?------>Sub phrenic**

The subphrenic space is a peritoneal space between the anterior part of the liver and the diaphragm, separated into right and left by the falciform ligament, and postero-superiorly bounded by the coronary ligament

* **In order for heparin to be an effective anticoagulant, clotting inhibitor required------>Antithrombin3**

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.

* **in right leg cordotomy which tract was involved------>left lateral spinothalamic tract**

Cordotomy (or chordotomy) is a surgical procedure that disables selected pain-conducting tracts in the spinal cord, in order to achieve loss of pain and temperature perception. For right, contralateral spinothalamic tracts are involved

* **Increased neural activity before a skilled voluntary movement is seen in?------>Cortical association areas**

Primary motor cortex neurons fire 5-100 msec before the onset of a movement. Thus, rather than firing as the result of muscle activity, these neurons are involved in relaying motor commands to the alpha motor neurons that eventually cause the appropriate muscles to contract.

* **Infundibulum supplied by?------>Right conus artery**

The conus artery passes superiorly and medially to supply the infundibulum of the right ventricle

* **is a 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.

* **IVC bifurcates at the level of?------>L5**

The inferior vena cava begins as the left and right common iliac veins behind the abdomen unite, at about the level of L5

* **loss of appetite to food and drink. Problem in------>Hypothalamus**

Hidden in your hypothalamus, you have a satiety center that regulates your appetite. ... CART stimulates the surrounding hypothalamus to increase metabolism, reduce appetite, and increase insulin to deliver energy to cells rather than be stored as fat

* **Lymphatic drainage of prostate?------>Internal Iliac nodes**

The lymphatic drainage of the prostate primarily drains to the obturator and the internal iliac lymphatic channels. There is also lymphatic communication with the external iliac, presacral, and the para-aortic lymph nodes.

* **Macrophages are derived from?------>Monocytes**

Macrophages are scavenging cells, large PHAGOCYTES derived from blood MONOCYTES, and are found all over the body, especially in the liver, lymph nodes, spleen and bone marrow.

* **Main support of pelvic viscera is?------>Levator ani**

The levator ani muscles i.e pubococcygeus, ileococcygeus and ischiococcygeus most likely provide the physical support or act as a “floor” for the pelvic viscera.

* **Main support of pelvic viscera is?------>Uterosacral ligament**

The pubocervical ligaments are bilateral structures, which attach the cervix to the posterior surface of the pubic symphysis. They function to support the uterus within the pelvic cavity. The uterosacral ligaments are also bilateral fibrous bands, which attach the cervix to the sacrum.

* **Main support of temporomandibular joint is?------>Temporomandibular ligament**

Four ligaments support the TMJ: the collateral, temporomandibular, stylomandibular, and sphenomandibular ligaments

* **Mechanism of tumor metastasis is?------>Down regulation of E- cadherin**

down-regulation of E-cad in metastatic cells permits their expression and activation of β1 integrin, which facilitates the initiation of metastatic outgrowth.

* **Meckel’s diverticulum presents with bleeding per rectum. Cause?------>Ectopic gastric tissue**

The most common symptom in children under age 5 is bleeding, which is caused by ulcers that develop in the small intestine when the diverticulum secretes stomach acid due to ectopic gastric tissie

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

The internal arcuate fibers are the axons of second-order sensory neurons that compose the gracile and cuneate nuclei of the medulla oblongata. ... Upon decussation from one side of the medulla to the other, also known as the sensory decussation, they are then called the medial lemniscus

* **Most common position of appendix is?------>Retrocecal**

The position of the free-end of the appendix is highly variable and can be categorised into seven main locations depending on its relationship to the ileum, caecum or pelvis. The most common position is retrocecal

* **Nerve supply of rectus abdominis is?------>Last five intercostal and subcostal nerve**

This muscle is innervated by the terminal branches of the anterior rami of lower six thoracic nerves via the lower intercostal nerves and the subcostal nerve.

* **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

* **New vessel proliferation is done by
which of these substance from macrophages?
------>PDGF**

PDGF plays a significant role in blood vessel formation, the growth of blood vessels from already-existing blood vessel tissue, mitogenesis, i.e. proliferation, of mesenchymal cells such as fibroblasts, osteoblasts, tenocytes, vascular smooth muscle cells and mesenchymal stem cells

* **normal adult hemoglobin contains
------>2aloha,2 beta chains**

The normal adult hemoglobin (abbreviated Hgb or Hb) molecule contains two alpha-globulin chains and two beta-globulin chains. Normal hemoglobin types include: Hemoglobin A (Hb A): makes up about 95%-98% of hemoglobin found in adults; it contains two alpha (α) chains and two beta (β) protein chains

* **On autopsy deranged ALT AST bilirubin, and lipid droplets were seen in hepatocytes. diagnosis?
------>Chronic alcoholism**

Alcoholic liver disease

* **On staining, cytokeratin indicates?------>Carcinoma**

Cytokeratin immunostains will stain most carcinomas, carcinoid tumors, epithelial organs, etc

**organ is present completely in peritoneal layers?------>Proximal part of duodenum**

Intraperitoneal organs are completely wrapped by visceral peritoneum. These organs are the liver, spleen, stomach, superior part of the duodenum, jejunum, ileum, transverse colon, sigmoid colon and superior part of the rectum.

* **Organism mostly present 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.

* **Ossification of the sternum body occurs at the age of------>21 years**
* **Oxidative burst in neutrophils ------>Initiation of microbicidal killing**

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. ... To combat infection, immune cells use NADPH oxidase to reduce O2– to an oxygen free radical and then H2O2.

* **Pancreatic magna artery is a branch of?------>splenic artery**

The greater pancreatic artery, also known as the pancreatica magna artery, is a branch of the splenic artery that supplies the pancreatic tail and body. ... It is the largest of the small pancreatic branches of the splenic artery, giving rise to its name

* **part responsible for sensing inadequate perfusion and secreting renin?------>Juxtaglomerular cells**

The afferent arteriole in this region contains specialised secretory cells (smooth muscle cells) called juxtaglomerular cells, that secrete renin. These cells do two things: They monitor blood pressure, by measuring how much the arteriole wall is stretched.

* **Pellagra is caused by deficiency ------>Niacin**

Pellagra is a disease caused by a lack of the vitamin niacin (vitamin B3). Symptoms include inflamed skin, diarrhea, dementia, and sores in the mouth. Areas of the skin exposed to either sunlight or friction are typically affected first.

* **Porphyrin binds to?------>Albumin**

Until recently, albumin was thought to be the main porphyrin binding protein in serum. However, since most porphyrins are cleared through the liver, and since albumin is not taken up by hepatocytes, it has bejn conjectured that other porphyrin-binding elements exist

* **Posterior descending artery supplies?------>Left side of heart**

The posterior descending artery branch supplies blood to the inferior aspect of the heart.

* **Posterior descending artery supplies?------>Av node**

The posterior descending artery branch supplies blood to the inferior aspect of the heart. The LMCA supplies blood to the left side of the heart. The LAD provides blood to the anterior ventricular septum and the greater portion of the anterior portion of the left ventricle

* **Primary movement of Atlantoaxial joints?------>Rotation**

Rotation is the primary movement at this joint - 60% of cervical rotation (50°) comes from the atlanto-axial articulation.

* **pt on immunosuppressive drugs and had HIV. He now presented with high grade fever, neck rigidity, +ve Kerning. Labs show organisms with a halo around it The most likely organism is?------>Cryptococcus Neoformans**

Infection with the encapsulated yeast Cryptococcus neoformans can result in harmless colonization of the airways, but it can also lead to meningitis or disseminated disease, especially in persons with defective cell-mediated immunity

* **Pulmonary varix opens into?------>Left atrium**

Pulmonary vein varix consists of a focal dilatation of a pulmonary vein segment that does not have an arterial connection, with the dilatation usually occurring close to the entrance of the vein into the left atrium

* **Radiation damage cell by free radicals which act on------>DNA**

Radiation damages cells by direct ionization of DNA and other cellular targets and by indirect effect through ROS.

* **red blood in stool. mucocutaneous pigmentation. small- to medium-sized polyps in intestine, diagnosed pathologically as hamartomas. Diagnosis?------>Peutz-Jeghers polyp**

Peutz-Jeghers polyps are hamartomatous polyps distinctively identified by the arborizing pattern of smooth muscle derived from the underlying muscularis mucosae. The polyps may be pedunculated or sessile.

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

Where the connecting medium is hyaline cartilage, a cartilaginous joint is termed a synchondrosis

* **renal artery obstruction and resultant increased renin secretion will cause?------>Angiotensin 2 induced vasoconstriction**

Angiotensin is a peptide hormone that causes vasoconstriction and an increase in blood pressure. It is part of the renin–angiotensin system, which regulates blood pressure. Angiotensin also stimulates the release of aldosterone from the adrenal cortex to promote sodium retention by the kidneys.

* **Ribosomes RNA major constituent of------>Ribosomes**

Ribosomes are composed of approximately 60% rRNA and 40% other ribosomal proteins by mass.

* **Right border of the heart is formed by?------>Right atrium**

The right border of the heart (right margin of heart) is a long border on the surface of the heart, and is formed by the right atrium

* **right sided weakness in both upper and lower limb and slight deviation of angle of mouth to the left while talking. Lesion on?------>Internal capsule**

An internal capsule stroke can cause arm, hand, leg, or foot weakness, described as hemiparesis or hemiplegia. You might have some strength left in the affected area (hemiparesis,) or you might not be able to move it at all (hemiplegia.

* **scnerio of pancytopenia, 0.1% Retie count and hypocellular bone marrow with normal cell morphology. Diagnosis is?------>Aplastic anemia**

When your immune system attacks your own body, you are said to have an autoimmune disease. Other autoimmune diseases include rheumatoid arthritis and lupus. Acquired aplastic anemia can begin at any time in life. About 75 out of 100 cases of acquired aplastic anemia are idiopathic .

* **show normal MCV?------>Blood loss 2 days before**

You can have a normal MCV and still be anemic if there are too few red blood cells or if other RBC indices are abnormal. This is called normocytic anemia.

* **Similarity between Cardiac and Skeletal muscle is?------>Transverse striations**

Cardiac and skeletal muscle are both striated in appearance, while smooth muscle is not.

* **splenectomy was done.present with fever hypotension. .what will be lab result------>Inc PT, APTT Dec, platelet, inc FDP**

Asplenic or patients with splenic dysfunction are at risk of overwhelming infection, most often by encapsulated bacteria. Infections may progress to speticemia and DIC. Lab values shows DIC

* **Standard deviation is calculated along mean because it shows?------>Variability among individual values**

The standard deviation is a statistic that measures the dispersion of a dataset relative to its mean and is calculated as the square root of the variance. ... The greater the standard deviation of securities, the greater the variance between each price and the mean, which shows a larger price range.

* **Structures compressing esophagus are?------>Left atrium**

An enlarged left atrium can cause dysphagia to solids due to external compression of the oesophagus

* **Structures compressing esophagus are?------>Left atrium**

An enlarged left atrium can cause dysphagia to solids due to external compression of the oesophagus

* **Superficial fascia is made up of?------>Loose areolar tissue and adipose tissue**

Superficial fascia is the lowermost layer of the skin in nearly all of the regions of the body, that blends with the reticular dermis layer. ... It consists mainly of loose areolar, and fatty adipose connective tissue and is the layer that primarily determines the shape of a body.

* **Superimposed bacterial infection in ischemic tissue results in?------>Gangrenous necrosis**

Dry gangrene occurs when the arterial blood supply to an area is occluded but the venous or lymphatic drainage is intact. Wet or moist gangrene is caused by occlusion or impairment of lymphatic and venous drainage plus putrefaction caused by a bacterial infection

* **Superior pancreaticoduodenal artery is branch of?------>Gastroduodenal artery**

The superior pancreaticoduodenal artery is a branch of gastroduodenal artery that supplies the duodenum and pancreas

* **Superior rectal artery is a branch of?------>Inferior mesenteric artery**

The superior rectal artery is the continuation of the inferior mesenteric artery

* **Supply of AV septum mainly is from?------>Anterior interventricular artery**

The remaining anterior 2/3 is supplied by the anterior interventricular artery which is a septal branch of the left anterior descending artery, which is a branch of left coronary artery

* **Sympathetic supply of lower airways is from?------>T1-T4**

Nerves originating from the spinal cord also innervate the airways with (4) sensory neurons originating from the dorsal root ganglia in thoracic vertebrae T1 to T4 which innervate the lower airways and bronchi.

* **tall man with high Bitemporal hemianopia and infertility. cause?------>Prolactinoma**

Bitemporal hemianopsia most commonly occurs as a result of tumors located at the mid-optic chiasm. Since the adjacent structure is the pituitary gland, some common tumors causing compression are pituitary adenomas and craniopharyngiomas.Prolactinoma is the definitive diagnosis due to infertility

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

The hypothalamus plays an important role in regulating the body temperature. This function is carried out by the anterior hypothalamus and the posterior hypothalamus. ... Stimulation of the anterior hypothalamus begins a thermolytic response thereby resulting in decrease in the body temperature.

* **test for diabetic nephropathy is?------>Microalbuminuria**

Screening for microalbuminuria with a spot urine albumin/creatinine ratio identifies the early stages of nephropathy. Positive results on two of three tests (30 to 300 mg of albumin per g of creatinine) in a six-month period meet the diagnostic criteria for diabetic nephropathy

**The difference between the mean of 2 groups is determined by?------>T-test**

A t-test is a type of inferential statistic used to determine if there is a significant difference between the means of two groups, which may be related in certain features.

* **The secretory hormones from neurohypophysis are stored in?------>Pituicytes**

Pituicytes are similar to astrocytes, another type of glial cell. Their main role is to assist in the storage and release of hormones of the posterior pituitary

* **total lung capacity of an adult male?------>6 liter**

The average total lung capacity of an adult human male is about 6 litres of air

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

Second order neurons in the nucleus tractus solitarius (NTS) process and integrate the afferent information

* **Trans pyloric plane:------>Origin of SMA at L1**

The transpyloric plane, also known as Addison's plane, is an imaginary horizontal plane, located halfway between the suprasternal notch of the manubrium and the upper border of the symphysis pubis at the level of the first lumbar vertebrae, L1

* **Tumor marker of colon carcinoma------>Carcinoembryonic**

Carcinoembryonic antigen (CEA) is expressed in most gastrointestinal, breast, and lung cancer cells. ... CEA is widely used as a diagnostic and prognostic tumor marker in cancer patients. It affects many steps of liver metastasis from colorectal cancer cells. CEA inhibits circulating cancer cell death.

* **Type of hypersensitivity in Myasthenia gravis?------>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

* **unable to stand from sitting position. muscle involved is?------>Gluteus maximus muscle**

Gluteus maximus main actions are to extend and laterally rotate the hip joint. Furthermore, upper fibers can abduct the hip whereas the lower fibers can adduct. ... If the gluteus maximus is paralyzed climbing stairs and running will become very difficult however, other muscles can extend the hip

* **undergoes amputation. Few months later growth at the cut end and shows haphazard growth of nerve fibres. Most likely it is due to?------>Neuroma**

A neuroma is a tumour-like thickening of a nerve stump in the region of the scar after amputation of a limb and is tender to pressure

* **venous drainage of the myocardium is drained by coronary sinus?------>2/3 of heart**

The myocardium drains mainly by two groups of veins: the tribu- taries of the greater and smaller cardiac veins, or the Thebesian veins. The main vein of the greater venous system is the CS that runs in the posterior aspect of the coronary groove.that drains almost 2/3rd

* **Virus causes cancer by alteration
in?
------>Proto-oncogene**

Activation of a proto-oncogene into an oncogene can occur by point mutation, gene amplification, and gene translocation. Virus can convert proto oncogene to oncogene

**winging scapula. Which nerves ------>Long thoracic**

Medial winging is more common, being caused by serratus anterior paralysis. This is typically due to damage (i.e. lesions) of the long thoracic nerve. This nerve supplies the serratus anterior, which is located on the side of the thorax and acts to pull the scapula forward.

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