

# Rapid Review

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# Anatomy

1. Structures present in the floor of 3rd ventricle includes Optic chiasma, Infundibulum and Mamillary body.
2. Floor of the orbit is formed by maxilla, zygomatic and palatine bone.
3. Structures pierced during pleural tap includes skin, intercostal muscle and Endothoracic fascia.
4. Division of chromosome perpendicular to the usual axis of division forms Isochromosomes.
5. Only cartilage making a complete ring in the larynx is Cricoid cartilage.
6. Vaginal epithelium develops from endoderm of urogenital sinus.
7. 'Anorectal ring' is formed by Puborectalis, Internal sphincter and External sphincter.
8. Loss of lacrimation occurs in the injury of Greater petrosal nerve.
9. Urethral crest in prostatic urethra is the elevation formed by insertion of trigonal muscle of ureter.
10. Boundaries of facial recess includes short process of incus, Facial nerve and Chorda tympani.
11. Subscapularis muscle of rotator cuff considered as 'Forgotten muscle', is given least importance regarding dislocation of shoulder.

# Physiology

1. Embryonic hemoglobin is formed by Zeta and epsilon chains.
2. Immediately after lying down there is immediate increase in venous return to heart.
3. Motorcyclist after RTA is having raised arterial pCO<sub>2</sub>, on ABG probable cause can be damage to respiratory apparatus.
4. Biomineralization is seen in Shell of mollusc and Bone.
5. Neuroendocrine cells of lungs secrete serotonin, innervated by cholinergic fibers and secrete catecholamines.

# Biochemistry

1. Cyclooxygenases are suicidal enzymes.
2. Irreversible steps in glycolysis are catalysed by hexokinase, glucokinase, and phosphofructokinase and pyruvate kinase.
3. FISH is used to locate a known gene locus.
4. Enzymes involved in oxidation reduction reactions includes oxygenase, dehydrogenase, peroxidase and hydroperoxidase.
5. Child presents with hepatosplenomegaly and pancytopenia. Histopathology reveals 'crumpled tissue paper appearance'. It is due to accumulation of Glucocerebroside.
6. Ketone can be utilised by brain, skeletal muscles and renal cortex but not by RBCs.

7. Real time PCR is used to know how much amplification of DNA has occurred and multiplication of specific segments of DNA.
8. Following microinjection to cell membrane healing occurs by resealing by lipid bilayer.

## Pathology

1. Tumor marker for Rhabdomyosarcoma is MYOD1.
2. MHC class II are not involved in innate immunity.
3. Apoptosis involves DNA fragmentation and cell shrinkage.
4. Inflammation is not seen in Apoptosis.
5. 8 year old child with mental retardation presents with left sided flank pain. USG shows hypoechoic lesion in left lower part of kidney with multiple cyst in liver. Most probable diagnosis is Tuberous sclerosis.
6. Most probable diagnosis of child with mental retardation, tumor of kidney and liver is Tuberous sclerosis.
7. ESR is raised because of increase RBC aggregate.
8. Tests for malabsorption includes C13 triolein, D-xylose and C-14 triolein.
9. Cyanosis is not seen in severe anemia because a critical level of reduced Hb is required to produce cyanosis.

## Microbiology

1. Man with 3 day h/o lacrimation, redness, discharge from left eye and later developed a perforation. Discharge from his eye demonstrated gram negative cocci which were oxidase positive. Probable organism is Neisseria gonorrhoeae.
2. Method of transmission of legionella is from contaminated food.
3. Rapid growing tuberculous mycobacteria causing lung infection includes M. kansasii, M. fortuitum and M. abscessus.
4. Stain used for fungal hyphae is Silver methenamine.
5. Young female with 3 day fever presents with headache BP 90/60 mmHg, HR and pin point spots developed distal to BP cuff. Most likely organism is n. meningitidis.

## Pharmacology

1. Rho kinase inhibitor is Fasudil.
2. Maximum tolerated dose of a new drug is evaluated in Phase 1.
3. Maximum tolerable dose of a new drug is tested by Phase I.
4. Orphan drugs are drugs for rare disease.
5. Vasopressin antagonists act on Cortical collecting duct.
6. Brimonidine decreases aqueous formation.
7. Prolonged post antibiotic effect and time dependent killing is seen in Penicillin.

8. Opioid receptor responsible for dysphoria is Kappa.
9. Ritonavir inhibits action of Cisapride, Amiodarone and Midazolam.
10. DOC for Mucormycosis is Amphotericin B.
11. Terbutaline can be given by SC route.

## Forensic Medicine

1. Man driving a car wearing a seatbelt applied sudden breaks, most common organ injured due to deceleration injury is Aorta.
2. Signature fracture is a depressed fracture.
3. Methanol poisoning has critical level of 1.25 ml/kg body weight, formic acid is mainly responsible for its toxicity and it causes snow field vision.
4. Priapism is caused by poisoning of Spanish fly.
5. Victim's gunshot entry and exit wounds not properly distinguishable due to corrective surgery is known as Kennedy's phenomenon.

## PSM

1. CHC has facilities for diagnosis and treatment of CVD and diabetes.
2. If confidence interval is increased, previously significant values would become insignificant.
3. Diseases under regular IDSP surveillance are Snake bite, URTI and Leptospirosis.
4. Number of MDG goals that are directly related to health is 3.
5. According to vision 2020, number of vision centre to be setup is 20,000.
6. Samples from blind schools should not be used to know the prevalence in community.
7. Forthcoming policy related to mental health is named as Mental Health Care Bill, 2012.
8. If prevalence of disease in a group of 100 people is 80%, 72-88% interval would be 95% probability of having the true value.
9. Proportion of a disease in a community was 50%. If the study is done for the disease existing in the range of 45-55% with 95% confidence limits, minimum required sample size would be 400.
10. Growth chart used in ICDS is that of MGRS.
11. 3 year bachelor of Rural Care (BR HCo) was recommended by High level expert group on universal coverage for India.
12. Social pathology denotes change in disease pattern due to change in lifestyle.
13. Quarantine period of Chickenpox is 6 days after onset of rash, of Herpes zoster is 6 days after onset of rash and that of Measles is up to 3 days after onset of rash.
14. ASHA gets remuneration for institutional delivery, recording birth weight and for giving 1st dose of OPV and DPT.
15. Meningococcal polysaccharide vaccine is routinely recommended for healthy adolescents and lab personals.

16. Meningo-encephalitis is considered to be highly endemic if the prevalence is  $>10/1,00,000$ .
17. Deworming under national child health program is done for all preschool and school children yearly, Albendazole 400 mg for  $>2$  year old is given and is linked with vitamin A supplementation programme.
18. HPI includes probability at birth of not surviving till age 40, % of population not using an improved water source and % of children underweight for age.

## Ophthalmology

1. Histopathology of Chalazion will show Lipogranulomatous inflammation.
2. Most common presentation of retinoblastoma is Leukocoria.
3. Ocriplasmin is a recombinant protease used to treat vitreomacular adhesion.
4. In acute conjunctivitis vision and pupil are not affected.
5. Calcification is seen in Retinoblastoma, Choroidal melanoma and Drusen optic nerve.
6. Risk factors for Rhegmatogenous retinal detachment includes Pseudophakia, trauma and lattice degeneration.
7. Most sensitive method to diagnose CMV retinitis is viral nucleic acid in intraocular fluid.
8. Diabetic complains of gradual diminution of vision followed by sudden vision loss. Most important investigation to be done is Serum homocysteine.
9. Most common NHL in orbit is B-cell.
10. Salt and pepper fundus is seen in Thioridazine toxicity and Congenital rubella syndrome.
11. Most common cause of intraocular metastasis in female is Ca breast.
12. Most common surgery to be expected to be performed by ophthalmologist in district hospital is Phacoemulsification.

## ENT

1. Patient with persistent ear pain, discharge, retro orbital pain and modified radical mastoidectomy was done to him. Patient comes back with persistent discharge, most likely diagnosis is Petrositis.
2. William F House is Father of neuro-otology.
3. 60 year old man with left sided ear discharge for 7 years with dull ear ache, intact tympanic membrane on both sides and mass is seen in posterior canal wall on left side. Diagnosis is Keratosis obturans.
4. 75 year old diabetic patient with granulation tissue at external auditory canal. Most likely diagnosis is malignant otitis externa.
5. 70 year old with left sided conductive hearing loss, intact tympanic membrane and Type B curve on tympanogram. Next step is Endoscopic examination to look for a nasopharyngeal causes.
6. BAHA is useful in bilateral choanal atresia and microtia.

7. Child with features of URTI on invention is found to have 'Thumbprint sign'. Most likely diagnosis is Acute epiglottitis.
8. In Bell's palsy, steroids are used, there is unilateral facial weakness and has a role of herpes simplex.

## Medicine

1. Woman with seizure and abdominal pain after sulphonamide injection. Cause is Acute intermittent porphyria.
2. In patients less than 50 years old with CLL, multidrug therapy is preferred.
3. Iodine inhibits synthesis of thyroxine, prevents peripheral conversion of T<sub>4</sub> and can be used preoperatively in hyperthyroidism.
4. 60 year old diabetic complains of gradual diminution of vision. Most important investigation for him is Serum creatinine.
5. Girl within 2 hours of ingestion of insecticide has kerosene like odour of breath, lacrimation, pinpoint pupil, rhinorrhea and weakness. Treatment should include Atropine as antidote, activated charcoal no benefit in it and plasma ACh has no prognostic value.
6. Features of iron deficiency anemia include increased RDW and increased Serum iron and Serum ferritin.
7. Temporo parietal area of brain most commonly undergoes atrophy in Alzheimer's.
8. Chronic HBV infection and HBsAg and HBeAg positive patients.
9. Patient with pCO<sub>2</sub> 30, pO<sub>2</sub> 104 and pH 7.45 has partially compensated Respiratory alkalosis.
10. Major criterias of Rheumatic fever includes Chorea, Carditis and subcutaneous nodules.
11. Most effective treatment for medically non-responsive seizures is Epileptic surgery.
12. Duration is used to differentiate between seizures and syncope.
13. Sudden LBBB is seen in Hyperkalemia, acute MI and hypokalemia.
14. Slowly growing, highly vascular tumor involving the cerebellum and spinal cord in adults is most probably Hemangioblastoma.
15. Insulin resistance is seen in patient with liver diseases due to Steatosis.
16. Person with small cell ca of lung can have Neuropsychiatric symptoms.
17. 48 year old woman with h/o seizures, recurrent gross hematuria and left flank pain. Ct reveals left perinephric hematoma with 3 cm angiomyolipoma along with multiple right renal angiomyolipoma measuring 1.5-6.5 cm. Most likely diagnosis is Tuberous sclerosis.
18. Elderly person with sudden onset headache with neck rigidity but no focal neurological deficit. Most likely diagnosis is SAH.
19. Most common type of MODY occurs due to defect in HNF 1 alpha.
20. 40 year old man with ptosis (more on one side), no h/o diplopia, occasional difficulty in chewing and swallowing, restricted eye movement and repeated nerve stimulation showed decremental response in orbicularis and anti Ach Antibody was negative. Likely diagnosis is Myasthenia gravis.

21. Patient with renal failure, bone pain, M spike on serum electrophoresis and plasma cells 35% in the peripheral blood. Probable diagnosis is Plasma cell leukemia.
22. Bilateral positive Babinski sign is seen in SAH.
23. In HIV atrophy is seen in anterior cingulate cortex, globus pallidus and caudate nucleus.

## Surgery

1. Rule of nine is used to calculate burnt body surface area.
2. Osteoblastic metastasis is seen in Ca prostate.
3. Most common cause of a toddler presenting with drops of blood per rectum is Juvenile rectal polyp.
4. Intercostobrachial nerve is affected in sentinel lymph node biopsy of breast tumor.
5. Innovation of refrigeration leading to better food preservation has led to decreased incidences of Stomach malignancy. year old with 4 x 5 cm mass in neck, biopsy showed metastasis probably squamous cell carcinoma but examination of larynx, nasopharynx was normal whole body CT and PET CT showed no primary and a diagnosis of carcinoma of unknown primary was made. TNM staging as per AJCC is T<sub>0</sub> N<sub>2a</sub> M<sub>0</sub>.
6. In damage control surgery, minimum intervention to stabilize and definitive surgery later.
7. Person with h/o 35 packs/year smoking presents with a painless left scrotal mass, microscopic hematuria and serum serum AFP and LDH negative. Diagnosis is RCC.
8. Earliest complication of ileostomy is Necrosis.
9. Mortality rate in emergency abdominal aortic aneurysm repair is >50%.

## Pediatrics

1. Causes of neonatal sepsis in India includes Klebsiella, E coli and staphylococcus.
2. 13 year old with sore throat, fever, whitish exudate on tonsils, foul breath and cervical lymphadenopathy. Probable diagnosis includes acute rheumatic fever and glomerulonephritis.
3. 7 year old child with steroid dependent nephrotic syndrome develops features of steroid toxicity during steroid therapy. Alternative drug for it is Cyclophosphamide.
4. For a neonate with meningomyelocele awaiting surgery, solution used to cover it in sterile gauze soaked in Normal saline.
5. Child with h/o fever and headache following by 2 episodes of GTCS. CSF shows cells 300, 65% neutrophil, protein 70 gm% and sugar 50 gm% with blood sugar of 95 gm%. Probable diagnosis is Pyogenic meningitis.
6. Baby with fever, RR 36/min, barking cough and breathless with stridor only while crying. Next step management is racemic epinephrine.
7. Red flag sign in development includes not moving up and downstairs by 2 1/2 years, not able to sit at 9 months and no 2 word phrase by 1 1/2 years.

8. Managements of asymptomatic child with delta waves and short PR interval includes beta blockers, treadmill and Holter monitoring.
9. 2 year old boy with palpable right sided abdominal mass, right arm and leg are slightly longer than left. Most likely diagnosis is Wilms tumor.
10. Features of PDA includes bounding pulses, pulmonary hemorrhage and NEC4.
11. 6 year old child with right left confusion and cannot identify his fingers and has alexia. Most probable diagnosis is Gerstmann syndrome.
12. Premature baby weighing 1 kg or less is most likely to suffer from ROP.
13. Features of Rett syndrome includes mental retardation, abnormal dendritic organization in cortex and seizures.
14. Baby can breathe and suck at same time because of high placed larynx.

## Obstetrics and Gynaecology

1. 19 year old with primary amenorrhea, well developed breasts and pubic hair and absence of vagina and uterus. Likely diagnosis is Mullerian agenesis.
2. HRT in postmenopausal women is given for vasomotor symptoms and osteoporosis.
3. Active management of 3rd stage of labor to prevent PPH includes direct oxytocin injection after delivery of shoulder, prophylactic misoprostol and controlled and sustained cord traction.
4. Steps to prevent maternal to fetal transmission of HIV includes prenatal zidovudine, avoid breastfeeding and Vitamin A prophylaxis.
5. Cause of sudden collapse of woman immediately postpartum is Amniotic fluid embolism.
6. Girl with primary amenorrhea, short stature and widely spaced nipple. Karyotype of girl would be 45 XO.
7. 30 year old woman living in hilly area with amenorrhea, hematuria, loss of weight and infertility. diagnosis is Genital TB.
8. Duncan's placental separation is peripheral separation.
9. In a 19 year old girl, painless ulcer in labia majora with everted margins is due to Treponema pallidum.
10. Ovulation occurs after ripening of follicle by FSH.
11. Most confirmatory test to diagnose 6 weeks pregnancy is transvaginal USG.
12. Apt test differentiates maternal and fetal blood cells.
13. Vaginal epithelium is derived from Endoderm of urogenital sinus.
14. End product of progesterone metabolism found in urine is Pregnanediol.
15. Vitamin A prophylaxis given to postpartum women is 4, 00,000 IU.
16. Patient on valproate and planned for surgery. Drug to replace valproate is Carbamazepine.
17. DOC for myoclonic epilepsy in pregnancy is Levetiracetam.
18. Female with recurrent abortion and pain in both calves is deficient in Protein C.



# Anaesthesia

1. Hypothermia during anaesthesia can be prevented by using warm fluids during anaesthesia.
2. Inhalational agent of choice for a patient undergoing surgery for intracranial SOL is Isoflurane.
3. A lithium potentiates NMDR, it should be stopped 3 days before surgery.
4. Shelf life of Suxamethonium is 2 years.
5. Diarrhea and hypotension are common side effects of Coeliac plexus block.
6. Ketamine is contraindicated in epilepsy.
7. Vasopressor of choice used for treatment of hypotension during anaesthesia in aortic stenosis is Phenylephrine.
8. Patient for elective laparoscopic cholecystectomy, all preanaesthetic evaluation is normal, all monitors applied and after giving antibiotics patient suddenly becomes pulseless and non-responsive. Next appropriate step is Chest compression.

# Orthopaedics

1. Woman with h/o Colles fracture and treatment presents with pain, stiffness and diffuse lysis of bone. Most probable diagnosis is Sudeck's atrophy.
2. Elderly woman on alendronate for 7 years develops pain in hip and thigh. IOC is X-ray.
3. Man is lying unconsciously in right lateral position with injury to face, hand and lateral aspect of right knee. It is due to involvement of Common peroneal nerve.
4. 2 year old child presented with rickets and limb deformity is treated with Vitamin D and calcium. Best time for surgery is before healing of growth cartilage.
5. Gallow traction is given in fracture of shaft of femur.
6. In supracondylar fracture, nerve injury related manifestations are transitory.
7. Most serious complication of pelvic fracture is Hypovolemic shock.
8. After RTA a patient suffered from injury in right knee and laxity is present in fully extend knee but no laxity in 90 degree flexion. Structure damage is posterolateral part of ACL.

# Radiology

1. Homogenous opacity in right lung with obscured right cardiac silhouette. Part of lung involved is medial segment of RML.
2. Young patient with 3 days h/o fever, cough and difficulty in breathing. CXR showing para cardiac opacity with irregularity of right cardiac silhouette. Probable diagnosis is acute pneumonia of medial zone of right lobe.
3. USG features of acute pyelonephritis includes peripheral collection, focal hypoechoic area and diffuse enlargement of kidney.
4. No edema in CT brain is found in vesicular and calcified nodular stage of Neurocysticercosis.

5. Salivary gland tumor hotspot on Tc99 scan is done in adenolymphoma.
6. TEE (transesophageal echocardiography) is better than TTE for clots in atrial appendages and left sided valvular lesions.
7. 2 days old neonate presented with seizures, next initial investigation is USG.
8. Neonate of 2 days ago with seizures. Investigation of choice is MRI.

## Psychiatry

1. Study done to know development of brain and behaviour of both normal and damaged brain is Neuropsychology.
2. According to Jean Piaget cognitive development theory 'Out of sight is out of mind' belongs to Sensorimotor stage.
3. As per WECHSLER intelligence scale a child said to have average intelligence if IQ is 90.
4. Chronic alcoholic didn't take alcohol for 2 days and now presents with seizures. DOC is Diazepam.
5. Man 30 year alcohol consumption history has not taken alcohol since 6 days. He developed seizure 6 hours back and an attack 1 day ago as well. Next step in management is Phenytoin.
6. Anticraving agent for alcohol withdrawal is Acamprosate.
7. Manifestations of Kluver Bucy Syndrome (KBS) in children includes Hypersexuality, hypermetamorphosis and intractable seizures.

## Skin

1. Child with grouped pinhead papule on penis, dorsum of hands and forearm. Likely diagnosis is Lichen planus.
2. Ridley Jopling classification of leprosy is based on clinical, bacteriological, histopathological and immunological features.
3. 7 year old boy with boggy swelling of scalp with multiple discharging sinuses with easily pluckable hair. Diagnosis can be made by KOH mount.
4. Patient with bullous lesions in skin as well as in urticarial plaques. Diagnosis can be made by Direct immunofluorescence.
5. Patient developed painful erythematous vesicular eruptions confined to T3 dermatome. Diagnosis is Varicella zoster.
6. Boy with painful oral ulcers with penile ulcers and blurring of vision. Most likely diagnosis is Behcets syndrome.
7. Agents causing SLE like reaction includes isoniazid, Hydralazine and Sulphonamide.