

## OSCE DECEMBER 2019 -DIPLOMATE OF NATIONAL BOARD

S1. Saggital CT and MRI of spine of a child were given. 1. What are findings? T2 hyperintense mass in pelvis communicating with spinal canal. It was pushing UB anteriorly, 2. What could it be? (Anterior sacral meningocele with extension into spinal canal.) 3. What are DDx, 4. What are associations.

S2. CT of brain axials in plain. 1. What are findings (showing hypodensity in left MCA territory) and Dx (MCA territory stroke), 2. What is ASPECTS score. ASPECTS full form, 3. What could the score for above patient be, 4. Write briefly how would you treat the above patient.

S3. A Statistics question. A very long question to read. True positives, true negatives, False positives and false negatives were however given in form of 2x2 table. We were asked to calculate 1. Sensitivity, 2. specificity, 3. PPV and 4. NPV. Doing the math itself took 5 minutes. Barely finished it in time.

S4. Post-contrast cardiac CT, MIP, its 3D reconstruction were given. 1. What is Dx, 2. Briefly describe normal coronary artery anatomy, 3. Name some common variants.

S5. Few MRI sequences were given. Questions asked were: 1. What are the findings: Dilated 3rd and lateral ventricles. The 4th ventricle was normal, 2. What is the diagnosis (Aqueductal stenosis), 3. Additional sequences of CSF flow study were given, 4. What role does this study play in prognostication?

S6. Pelvic MRI. T1, T2 sequences. Questions asked were: 1. What are Findings (cystic lesions in right ovary T1 bright and T2 shading sign), 2. What is the diagnosis (Ans: Endometriotic cyst). 3. Name close differentials and how to differentiate them, 4. What will be findings in USG.

S7. MRI brain of young male showing periventricular lesion. Questions asked were: 1. Identify sequences (T1, T2, Flair, DWI, ADC, post contrast), 2. What are the findings, 3. What is the diagnosis, 4. What could be the causes of such a lesion.

BREAK FOR 5 MIN

S8. Thyroid scintigraphy scan was given. A focal uptake in the right lobe of thyroid. Questions asked were: 1. Identify the study, 2. What lesions could produce such a picture. What could be the Dx, 3. Name two Nuclear agents used for this study, 4. Most common indications for such a scan.

S9. An x-ray knee joint AP and lateral of young male. Questions asked were: 1. Findings (Parosteal sclerotic lesion in the poster aspect of femur) 2. Diagnosis (parosteal osteosarcoma), 3. Name some benign and malignant lesions having similar appearance, 4. How will you differentiate the close ones?

S10. A Fluoroscopic image of abdomen showing filling of contrast in two tubular structures. Were they bile ducts or vessels I was not sure so had to stare at it till two minutes were left). It was given with a catheter visualised over porta hepatis. (No percutaneous needles seen). Gall bladder was also not filled with contrast. Not sure of what study was it.

Questions asked were: 1. Identify the study, complications, 2. In which scenario we do such study, 3. What alternate imaging what we can do?, 4. What could be the clinical scenario?. Was confused between PTBD/Portography. Now I feel it is portography study.

S11. Picture of X-ray tube was shown. Total 6 questions were asked. 1. What materials are used for anode, 2. Size of focal spot in conventional and mammo, 3. Atomic number barium etc, 4. Parameters of PA CXR, 5. Dosage of one PA CXR, 6. Operating kV range of general radiography and mammo.

S12A. Child. Xrays of hands lower limbs and chest were given Questions asked were: 1. What are Findings: Widening of metaphyseal growth plates in all bones with fraying. No bowing or no osteopenia, 2. What are DDX

S12B: Hx of Fall on shoulder. Radiographs shoulder were given. Questions asked were: 1. Diagnosis(Hillsach's and anterior dislocation), 2. Name the views.

S13. MRI brain of a child with MRA, MRV and MIP images. Questions asked were: 1. Name the study and findings, 2. Name the phenomenon or disease (Moya Moya), 3. Most common causes, 4. Why 3D TOF is better than 2D TOF?

S14A. 40 yr man with hip pain and morning stiffness. Questions asked were: 1. Findings ( Bilateral sacroiliitis and paravertebral ossification. I gave it as Psoarthritis. It was not looking like ankylosing spondylitis at all. No obvious syndesmophytes or trolley track sign etc...) 2. Give DDX

S14B. A sick and diabetic patient underwent USG. On placing the probe the kidney was not seen clearly. (CT abdomen was given which was showing bilateral emphysematous pyelonephritis which was very gross on right side). Questions asked were: 1. What is Dx ( Emphysematous B/I pyelonephritis) 2. Why was the right kidney could not be seen in USG, 3. Name the causative organisms involved.

S15. IVU was given. Questions asked were: 1. What are findings (There was obvious infundibular stenosis and phantom calyx etc so gave GU TB as Dx), 2. What could be USG findings and what are the criteria, 3. What is the etiopathology of the findings? 4. Enumerate some complications of the disease.

S16. An adult male undergoing treatment for a malignancy has undergone CT chest screening. Questions asked were: 1. What are the findings (A solitary nodule in right lung with calcification within it), 2. What is diagnosis (Pulmonary hamartoma), 3. What are DDX?, 4. What could be the cause of such lesion?

S17. Recent history of abdominal pain in young male. Admitted in emergency. Lipase elevated.

Questions asked were: 1. Findings: A large T2 bright lesion in pancreatic body, 2. What is name of classification. What criteria are followed for the classification, 3. Name few complications.

S18. Axial CEct of abdomen with MIP. Young male abdomen pain. Questions asked were: 1. Findings: Dilated jejunum with filling defect in SMA, 2. Dx: Mesenteric thrombus and ischemia with gangrenous bowel, 3. What is the cause of such appearance of small bowel?, 4. What indicates its irreversibility?

S19. History of young female with acute pelvic pain and bleeding. Pelvic MRI was given with a large lesion in abdominopelvic region. It was T1 and T2 dark predominantly with follicles in periphery. Questions asked were: 1. Findings: (Couldn't make out the origin of the lesion itself. So had to stare at it for quite sometime. So confabulated it as Ovarian torsion) 2. Diagnosis (was not sure), 3. What is the sign you will look for?, 4. What classification is followed for such lesions?

S20. Axial post contrast Ct of male pelvis. Questions asked were: 1. Findings: A single, dilated, contrast-filled structure at the right inguinal level. (Thought it was varix, not sure). IVC and aorta looked normal, 2. Classification?, 3. Complications, 4.-

S21. A man was depressed, having vague pains in the body, with calculi in both kidneys in his previous usg (Already with Hx it was appearing like hyperparathyroidism). A Chest X-ray was given (It appeared near normal with a likely distal clavicular erosion. No clear osteopenia or brown tumors though).

Questions asked were: 1. What are the findings that you would look for in the chest X Ray. 2. What could be the diagnosis? 3. What could be the causes? 4. What radiographic study will you further proceed with? What could be their findings?

S22. It was a child. Radiograph of skull, hands and lower Limbs were given. The bones were subtly but diffusely appearing sclerotic. The mandible was appearing normal. There was no obvious acroosteolysis. There was no Erlenmeyer flask deformity adding to the confusion.

Questions asked were: 1. What are the findings, 2. What are the differential diagnoses, 3. How will you differentiate the closest one, 4. Name two complications of the disease.

S23. A flourosopic study was given. Questions asked were: 1. Name the study (HSG), 2. What are the findings? (I could notice good spill bilaterally, filling defect in the body so gave it as submucosal fibroid/polyp), 3. What could be the complications of this study if any?, 4. Name two indications of the study.

S24. Breathlessness in middle-aged patient. Ct lung was given. Date of study was nov/dec 2020. Questions asked were: 1. Findings (Multiple, bilateral extensive subpleural GGO with few areas of consolidation, 2. What is most likely Dx and why, 3. What other diseases could produce similar picture, 4. Criteria for staging.

S25. CT and MRI brain of a child were given. Questions asked were: 1. what are findings and Dx? (Soft tissue lesion with rim of calcifications in sella and suprasellar region. So craniopharyngioma), 2. DDx, 3. Types of this lesion 4. What will be the findings in other type of the lesion?

AFTERNOON/LONG CASES which we got (same for everyone all over the country):

1. History was not given. Initially Frontal Xray was given. Question was "What do you think at this point"?

Dx Mediastinal mass with opacities in lung & discussion.

Then CT was provided. It revealed a mass in middle mediastinum causing air-fluid levels/obstruction of esophagus. Final Dx was Leiomyoma esophagus causing obstruction and resultant bronchiectasis due to recurrent aspiration.

Then discussion on mediastinum anatomy, common mediastinal masses, cross section anatomy of bowel, all the masses arising from esophagus and GIT followed.

2. History: Young male with history of some surgery.

Axial, coronal and sagittal CT with post contrast also were provided.

Large irregular retroperitoneal mass with loss of fat planes between the lesion and paravertebral muscles. It was also pushing the left kidney anteriorly and stretching renal vessels. Lungs had three well-defined nodules (which were obviously metastases).

The catch was that the left testicle was not seen in any CT sections while the right one was seen. So we had to suspect that he underwent orchidectomy.

Final diagnosis: Operated for a left testicular mass possibly seminoma. Now presented with malignant nodes. Lung mets.

Discussion on retroperitoneum anatomy, Diagnosis, DDX, tumor markers, treatment.