

OSCE EXAM date 31/3/2021

Abbreviation S- Station, S(Substation) part A and B

Q-Question

S.1 Image of Iohexol 350mg/ml



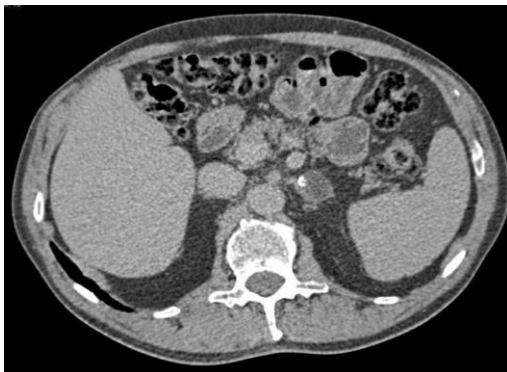
Q1 What is the osmolality of this contrast (**Answer** 600-800mosm/Kg of H₂O)

Q2 What is the normal osmolality of blood (**Answer** 280-290mosm/Kg of H₂O)

Q3 what is the criteria for post contrast acute kidney injury (I forget answer that time)

Q4. What is the prevention method for Contrast induced nephropathy in diabetic patient? His creatinine 16mg/dl. (**Answer** Metformin stop 48 hours before, because metformin causes lactic acidosis that led to renal tubular injury)

S.2 30-year female CT image provide (left adrenal lesion) NCCT 16 HU, CECT 52HU Delayed 25HU



Q1 what is CT protocol (Arterial, Delayed at 15 mint)

Q2 Calculate Absolute and relative washout rate (I gave roughly **answer** AWR > 60% and RWR >40 % because I have running of short time so that I couldn't finished completely0

Q3 What is the diagnosis (**Answer** Left adrenal adenoma -lipid poor type)

Q4 What are the other method for diagnosis (**Answer** DECT and MRI inphase and outphase image)

S.3 Lumbar spine MRI images (thickened filum terminal and hypoplasia of sacrum)

Q1 What is the diagnosis (**Answer** Caudal regression syndrome)

Q2 What is risk factor (**Answer** Diabetic mother and folate deficiency)

Q 3. What is other associated syndrome (Answer Diastematomyelia and Arnold Chiari malformation type II)

S.4 30-year female, she presents with history of fall. CT & MRI lumbar image Chance fracture with retropulsion fragment



Q1 What is the clinical presentation

Q2. Write the grade

Q3 Write the classification of TLCS

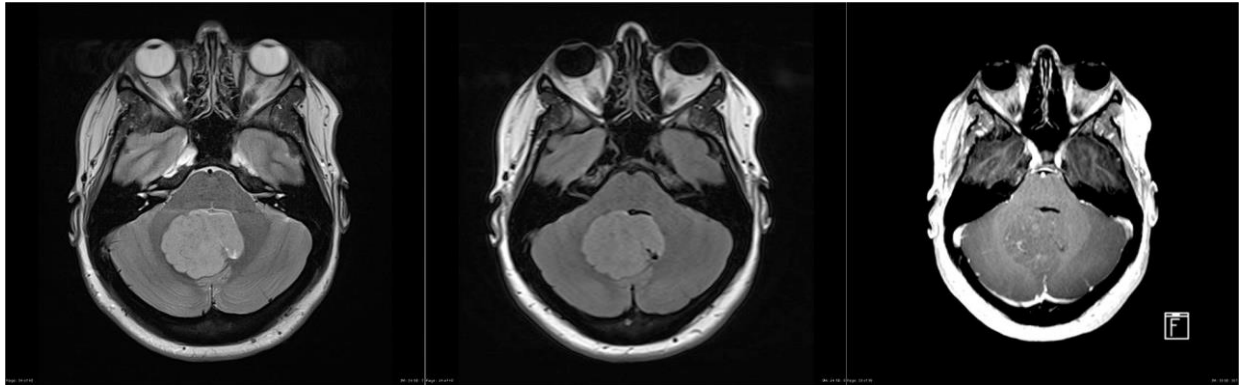
S.4 CT image of PNS



Q1 write name of variant (Posterior ethmoid cells -Onodi cells and Optic nerve traversing beneath the roof of sphenoid sinus -Delano classification Type 4)

Q2 what do you write in report

S.5 3-year-old child, provide MRI images



Q1 Write the name of sequences (T2w axial image, T2FLAIR, DWI image, Post contrast image)

Q2 Write the origin of lesion (**Answer** Floor of 4th ventricle)

Q3 What is the diagnosis (**Answer** Ependymoma)

Q4 What is the closest differential diagnosis (**Answer** Medulloblastoma -Arise from roof of 4th ventricle, vermis)

S.6A 5year old child provide CT image (Hyperdense lesion in right basal ganglia with mild perilesional edema) MRI image T2w axial (Hypointense lesion with mild perilesional edema in right basal ganglia) T2FLAIR (hyperintense lesion) DWI (Diffusion restriction present) MRS (only lactate peak present, choline peak present, then I am confused, this is lymphoma or not)

Q1 what is the diagnosis (**Answer** -CNS lymphoma)

Q2 What is the reason for diffusion restriction (Diffusion restriction due to high cellularity of tumor)

S.6B 32-year-old female presented mass in left breast for 8 months, gradually progressive, no nipple discharge, no nipple retraction and no skin retraction or thickening.

Provide Mammography image (Well circumscribed and spiculated high density mass lesion in outer upper quadrante of right breast, fine pleomorphic calcification seen within.) MRI images (Well circumscribed soft tissue mass lesion in upper outer quadrant -

1-2'Oclock position) which is show homogenous enhancement on pots contrast images, Type C kinetic curve)

Q3 Write the BIRADS (**Answer** BIRADS5)

Q4 Which type of graph is represent lesion (**Answer** Type C kinetic curve)

Q5 Write the indication of MRI

S.7 5-year-old child with short stature provide image Hand image Show polydactyl , Lumbar spine image (AP view), Pelvis image and Knee joint image (metaphyseal spur and varus angulation)



Q1 What is the diagnosis (**Answer** Elis van crevald syndrome)

Q 2Write the silent features of this cases

4 min rest

S.8 5-year-old child h/o fall, provide the radiographic image of elbow joint

Q1 What is the diagnosis (**Answer** Medial epicondylitis with displaced medial epicondyle)

Q2 What is the age of this child according to ossification center (According to Mnemonic CRITOE **Answer** 5 year)

Q3 Write the ossification center of elbow joint (Answer Capitulum 1-year, Radial head 3 year, Inner/ medial epicondyle 5-year, Trochlea 7-year, Olecranon process 9 year and External / lateral epicondyle 11 year)

S.9 40-year-old female with weight loss and distention of abdomen, provide image axial section at the level of Stomach (Asymmetrical wall thickening seen along greater curvature of stomach), Reformatted coronal image (Massive ascites) Axial image at pelvis level (Bilateral ovary enlarged with heterogenous enhancement)

Q1 What is the complete diagnosis (Answer Ca gastric carcinoma with bilateral ovarian deposit and massive ascites / **Krukenburg** tumor)

Q2 which cells are seen in aspirated sample (Answer Squamous cells)

S.10 Table

Test	Disease	Healthy
Positive	40	360
Negative	60	3640
Total	100	4000

Q3 Calculate Sensitivity and specificity

Q4 Can be use this test for screening program?

S.11 28-year pregnant female, On USG monochorionic monoamniotic twins.

Q1 What are the complications of monochorionic monoamniotic twins (Answer Twin to twin transfusion syndrome and Twin embolization syndrome)

Q2 What are the criteria for

- a) Dichorionic and diamniotic twins
- b) Monochorionic and Diamniotic twins

S.12 MRI images

Q1 Write name of views (Answer Short axis and 4 chamber view)

Q2 What is the diagnosis (Answer Tetralogy of fallot -RVH, PS, overriding of aorta and VSD) Some people say Answer Ebstein anomaly.

Q3 What is other associated syndrome (Answer Eisenmenger syndrome and PDA)

S.13 Liver injury, provide CT images (Liver laceration >3 cm, Intraparenchymal hematoma distance >10cm, >3 segment involved with vascular injury) And DSA image (Small pseudoaneurysm of right branch of hepatic artery)

Q1 What is the classification for liver injury (Answer AAST-American association for the surgery of trauma)

Q2 Write the grade of injury (Answer AAST grade 4)

Q3 What is the treatment of pseudoaneurysm (Answer Embolization -Coiling)

S.14 1year child with distension of abdomen, provides USG, CT and MRI images (Multiple small cysts in bilateral kidneys)

Q1 what is the diagnosis (Answer Bilateral Nephroblastomata)

Q2 What is the other associated syndrome (Answer Wilms and WAGR)

4 min rest

S.15 25-year-old Male with past history of tuberculosis, now presented with hemoptysis and dyspnea, provides CT images (Left upper lobe volume loss with fibrotic changes and traction bronchiectasis. focal hyperdense focus, which showing same arterial density on post contrast image)

Q1 What is the diagnosis (Answer Rasmussen aneurysm)

Q2 What is the sign in case (Answer CT angiogram sign)

Q3 What is treatment of choice in the case (Answer Embolization-Coiling) NBCA don't use because its causes pulmonary infarct)

S.16 20-year-old mal present with scrotal swelling on left side and gradually increasing om size in 6month

Provides CT images (Fluid density lesion seen in pelvis on left side and extending into scrotum on left side, Spermatic cord is not separately seen from the lesion)

Q1 What is diagnosis (**Answer** Left spermatic cord hydrocele)

Q2 What is the subtype of this lesion (**Answer** funicocoele type hydrocele and Spermatic encyst hydrocele)

Q3 What is the pathology of spermatic cord hydrocele (**Answer** Persistent process vaginalis)

S.17 Image Cone and cylinder

Q1 Method and classification of beam restrictor (First Aperture/ Diaphragm Second -Cone & Cylinder and Third Collimator)

Q2 Name of this device (**Answer** Cone and Cylinder)

Q3 Where is use this device (Answer Mastoid examination, Pituitary Sella examination, Gall bladder, L5-S1 joint and ankle joint)

S.18 40-year male present with dyspnea, sinusitis and hematuria, provide CT images CT thorax (interseptal thickening, ground glass opacification) CT PNS coronal (Nasal septum perforation) DAS image of right renal kidney (few aneurysm of segmental branches of right renal artery)

Q3 What is the diagnosis (**Answer** Granulomatosis with polyangiitis /Wegner granulomatosis)

Q4 Which lab investigation you would advise? (**Answer** C-ANCA – Cytoplasmic anti-neutrophilic cytoplasmic antigen)

Q5 Write the pathological classification (I didn't remember)

S.19 40-year female presented with left upper limb weakness for 6month, provide USG doppler images (Spectral widening and bunny rabbit ear type wave)

Q1 What is the diagnosis (Left Subclavian steal phenomena)

Q2 What is the characteristic feature of this wave pattern (**Answer** Bunny rabbit ear pattern)

Q3 What are the causes of this condition? (**Answer** Atherosclerosis and Takayasu arteritis)

S.20 Siemens MRI machine, monitor images, (Red button which is show in image)

Q1 What is the role of height and weight in MRI scan (**Answer** Calculation of contrast dose and determine length of scan/localizer).

Q 2. What is the use of the red button? (**Answer** its use in emergency situation -Emergency run down/Magnate stop)

Q3 What is the name of this process (**Answer** Quenching)

S.21 Chest X-ray image (Swan-Ganz catheter /Pulmonary capillary wedge pressure catheter tip seen in right descending pulmonary artery)

Q1 Write the name of catheter (**Answer** Swan -Ganz catheter)

Q2 How many lumens presents in this catheter (**Answer** 4)

Q3 What are the complication (**Answer** Ventricular arrhythmia and Pulmonary artery thromboembolism)

4 min rest

S.22 Provides the right parotid gland sialography study (Enlarged right parotid gland with dilated ducts)

Q1 Write the name of study (**Answer** Right parotid gland sialography)

Q2 What is the diagnosis (**Answer** Sjogren syndrome)

Q3 What is the site of contrast administration (**Answer** Through the Stenson duct, located Adjacent to the Crown of the second upper molar in buccal mucosa)

S.23 58 year old male brought at hospital, he was unconscious and S.Na 125mEq/L, S. K 4.5mmol/L ,provided MRI images (T2 hyperintensity in pons with spared bilateral corticospinal tracts)

Q1 What is the diagnosis (**Answer** Central pontine osmotic demyelination)

Q2 Which spinal tracts fibers are spared in this case (**Answer** Corticospinal tract)

S.24 Left Side weakness and slurring of speech, provided MRI Images T2W and FLAIR (Hyperintensity in pons medial aspect on left side) DWI and ADC (Showing diffusion restriction)

Q1 Identify sequences (T2 w axial, FLAIR axial, DWI and ADC images)

Q2 What is the diagnosis (**Answer** Medial medullary syndrome /**Dejerine** syndrome)

Q3 Which nerves are affected (**Answer** Hypoglossal nerve)

S.25A 35 year old female presents swelling in thigh for 8month provide MRI images T2 fat sat axial (Heterogenous signal intensity seen posterior aspect of thigh in subcutaneous plane , T2w Fat sat Axial coronal Image .

Q1 what is diagnosis (**Answer** Synovial sarcoma)

S.25B 3year old child unable to weight bear, provided Radiographic image of left wrist joint and bilateral knee joints

Q1 Write the findings (**Answer** Pelkan spur/metaphyseal spur, Wimberger's ring / ring epiphyseal, trummerfeld's zone/ Scorbutic zone and White line of Frankel / Zone of provisional calcification)

Q2 Write the diagnosis (**Answer** Scurvy)