Packet 1: Case 1

- For recruitment
Packet 1: Case 2

- 8 year old boy with convulsions
Packet 1: Case 3

- 55 yr old male with acute pain in abdomen
- No prior or long standing illness
Packet 1: Case 4

- 10 yr old boy with limp
- increasing swelling & pain at right ankle
Packet 1: case 5

- 55 yr old male
- RUQ pain & dyspnea
Packet 1: Case 6

- 61 yr old male
- CXR done for minor chest trauma x 2 wks
Case 1:

Observations & Interpretations:

CXR:
- Abnormal curvilinear vascular channel/s paralleling right heart border seen in right mid & lower zone draining near rt cardiophrenic angle - 1
- It becomes larger in caliber as it descends down (like a Scimitar). - 1
- Right lung volume is less as compared to left indicating hypoplasia. - 1
- Mild cardiac shift to right seen. Cardiac size & situs: Normal - 1
- Left lung: normal.
- No pleural effusion

CECT:
- Confirms the abnormal vascular channel draining into IVC.
  Hypogenetic lung is also confirmed. - 1
- No additional findings.
Diagnosis & Differential diagnosis:

Partial anomalous pulmonary venous drainage with hypoplastic right lung (Scimitar syndrome) - 1

DD: Pulmonary AVM, but no hypertrophied arteries - 1

Further workup & Management:

- MR/ CT angiography.
- Echocardiography (to r/o cardiac anomalies if associated) - 1
- CT brain & USG abdomen
Case 2

Observations & Interpretations:

NCCT & CECT Brain:

- shows a few discrete calcified nodules in frontal & parietal lobes bilaterally. One of them is located sub-ependymally on right side. - 1

- A marginally hyperdense area seen in the region of foramen of Munro on right side which enhances on CECT. This lesion is not causing any significant obstruction. - 1

- Otherwise rest of the brain is unremarkable.

- No cortical or sub-cortical hypodensities noted. No mid line shift. No hydrocephalus. - 1
Interpretation:

- Presence of a right Foramen of Munro giant cell astrocytoma, subependymal hamartoma & parenchymal calcifications are consistent with ‘tuberous sclerosis’. - 1

Diagnosis & Differential diagnosis

- Principal Diagnosis: Tuberous sclerosis - 1

DD: calcified granulomas- less likely as one of the calcification is typically located in sub-ependymal location.
- TORCH infection (congenital)-unlikely as location of calcification does not correlate. - 1

Further work-up & management:

- USG abdomen- for AML in kidneys, - 1
- Look for subungual fibromas and skin changes (adenoma sebaceum). Elicit for presence of mental retardation
- Screen family members for the disease. - 1
Case 3

Observations & Interpretations:

- AXR: Supine & Erect films: shows a grossly dilated large bowel loop ('U' shaped loop) with one blind end- indicating dilated cecum & proximal colon. Small bowel is not dilated. - 1

- Two air fluid levels seen in this loop

- A trapped bowel loop seen in continuity above the diaphragm overlapping lower thoracic vertebrae- likely to be herniated loop. - 1

- Right dome of diaphragm is grossly elevated. - 1

- No free intra-peritoneal air seen. - 1

- No intra-mural or portal vein gas identified.
Diagnosis & Differential diagnosis:

Diaphragmatic hernia with large bowel obstruction. - 1

• DD: cecal volvulus. - 1
• Large bowel obstructive lesion with competent IC valve.

Further work-up & management:

• Inform the referring surgeon immediately about gross dilatation of large bowel loop. - 1
• Limited Contrast enema
• CECT to look for viability of the dilated large bowel loop
Case 4

**Observations & Interpretations:**

- Radiograph of Rt ankle: A tubular fingerlike lucent area with faint sclerotic margin seen in distal tibial metaphysis, reaching upto epiphysis.  
- 1

- Soft tissue thickening seen on the antero-medial aspect of the ankle.  
- 1

- No obvious periosteal reaction seen.  
- 1

- Rest of the visualized bones & joints appear normal.

- USG of Rt ankle shows localized collection with internal echoes.  
- 1
Diagnosis & differentials:

- Brodies Abscess - 1
- DD: Langerhans cell Histiocytosis, NOF (but not cortical based) & Chondroblastoma - 1

Further work up & Management:

- USG guided aspiration of the ankle collection- for culture & sensitivity. - 1
- MRI of ankle. - 1
Case 5
Observation & interpretation:

Triphasic CT (liver) Abdomen:
• Changes of liver cirrhosis (nodular margins) with arterial phase heterogeneously enhancing lesion in segment 6/7 right lobe. The lesion in right lobe shows indistinct lateral margin with possible rupture in to peritoneal cavity. - 1
• Few more smaller similar lesions seen in left lobe.
• Early wash-out of contrast from lesion seen in portal venous phase. - 1
• Right hepatic vein is not enhancing – indicating thrombus/ Budd Chiari syndrome. - 1
• Portal vein- normally enhancing. - 1
  Questionable collaterals in lower end of esophagus.
• No calcification seen in non-contrast scan.
• Spleen, pancreas & GB appear un-remarkable.
• Ascites seen. - 1
• Cortical cyst seen in left kidney.
• Bowel loops under view appears un-remarkable.
Diagnosis:

- Cirrhotic liver with multicentric HCC & right hepatic vein thrombosis - 1
- DD: Liver metastatic deposits - unlikely in view of underlying cirrhosis. - 1

Management & further work-up:

- Inform referring doctor about Right hepatic vein thrombosis & possible rupture of the right lobe lesion. – 1/2
- Image guided biopsy of one of these lesions - 1/2
- AFP levels
- Screen for Hepatitis B/C
Case 6

Observation & interpretation

- **CXR**: a well defined large left upper zone lesion which is homogeneously opaque. The lesion appears to be located anteriorly as there is preservation of aortic knuckle & descending aortic shadow. - 1
- The lesion forms acute angle with the lateral pleura- indicating probably intrapulmonary location. - 1
- Lateral view confirms the location of the lesion anteriorly.
- No calcification or air fluid level seen. No underlying rib erosion. Old fractures of left 7th & 8th ribs - 1
- Rest of the lungs appears normal. Normal size of heart. No right pleural effusion.

- **CECT** – confirms the location of the lesion in left upper lobe, anteriorly located. The lesion has cystic density and does not show any enhancing solid areas. No floating membrane or air fluid levels seen. Rest of the thoracic contents appear unremarkable. - 1
Diagnosis & differential diagnosis.

- Likely hydatid cyst in left apex. - 1

- DD: Duplication cyst (less likely in this location & does not show typical gut wall appearance)
- Brochogenic cyst (location is atypical)
- Could be an old hematoma in view of rib fractures, but liver lesion is not explained. - 1
- Cystic pleural deposits.

Management & Further work up

- Hydatid disease serum markers – 1/2
- Lesion can be aspirated with fine needle under image guidance for cytology, as per protocols of some centers, but there is a risk of anaphylactic reaction and spread. -1/2
Thank You

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