

CT WHOLE ABDOMEN AND PELVIS (PLAIN AND TRIPHASIC CONTRAST)

Technique: Plain and triphasic intravenous contrast enhanced axial CT scan of abdomen and pelvis has been performed with retrospective 2D multiplanar reconstruction.

Findings:

LIVER, RETROPERITONEUM AND PANCREAS:

There is a small 2.6 x 1.4 cm sized hypodense lesion which shows peripheral, nodular discontinuous arterial phase enhancement with progressive enhancement on venous phase and becomes homogenous to rest of the liver on delayed phase is seen in segment VI of the liver.

Multiple small simple cysts are seen scattered in all segments of the liver.

Liver shows diffuse, heterogeneous contrast enhancement.

There is partial thrombosis of the main portal vein, porto-splenic confluence and proximal SMV.

Multiple venous collaterals are seen in the peri-portal, peripancreatic, splenic hilar regions.

An ill-defined large approx 4.3 x 3 cm sized mildly enhancing soft tissue density lesion is seen in the upper retroperitoneum in preaortic and para-aortic regions not seen separately from the posterior aspect of the head of the pancreas and is encasing the aorta, celiac trunk, SMA and right renal arteries with loss of fat plane. (There is an accessory right renal artery). The mass also on its anterior aspect shows loss of fat plane with the portal vein and porto-splenic venous confluence.

Main Pancreatic duct in the body and tail of the pancreas is normal. No duct dilatation in the head or uncinata process of pancreas.

Few mildly enlarged hypodense lymphnodes are seen in the left para-aortic and aorto-caval regions.

The hepatic veins and the intrahepatic IVC are normal.

GALLBLADDER:

Gallbladder is distended with normal wall thickness. It shows no hyperdense calculi within.

CBD

CBD is normal in size.

SPLEEN:

Spleen is normal in size, shows normal contrast enhancement.

PERITONEUM AND BOWEL LOOPS:

There is moderate free fluid in the abdomen and pelvis.

Few small enhancing peritoneal nodules seen in RIF and along the right medial umbilical ligament.

Mild, circumferential, edematous wall thickening of the cecum and ascending colon.

Rest of the bowel loops are unremarkable.

BOTH KIDNEYS AND ADRENALS:

Both adrenals are normal in size, density and enhancement. No focal lesions.

Both kidneys are normal in size, show prompt nephrogram and good excretion of contrast.

A 3.8 x 3.2 cm sized simple cortical cyst is seen in lower part of the right kidney.

A tiny cortical cyst is seen in the lower pole of the left kidney.

Both ureters are normal in course and caliber.

PELVIS:

Urinary bladder is distended and normal.

Mild prostatomegaly.

MISCELLANEOUS:

Visualised bones show degenerative changes. No focal lytic or sclerotic lesion seen.

Both the visualized lung parenchyma appears normal.

A small 1.8 x 1.1 cm sized mildly enhancing nodular lesion is seen in the right lateral abdominal wall muscles at L3 vertebral level.

IMPRESSION:

- **An ill-defined mildly enhancing soft tissue density lesion in the upper retroperitoneum in preaortic and para-aortic regions not seen separately from the posterior aspect of the head of the pancreas and is encasing the aorta, celiac trunk, SMA and right**

renal arteries with loss of fat plane. The mass also on its anterior aspect shows loss of fat plane with the portal vein and porto-splenic venous confluence. There is resultant dilatation of the main pancreatic duct in body and tail of pancreas. This mass is most likely suggestive of malignant neoplastic etiology (metastases or an exophytic primary from the pancreas), less likely retroperitoneal fibrosis.

- Few mildly enlarged hypodense lymphnodes are seen in the left para-aortic and aorto-caval regions most likely metastatic lymphnodes.
- Thrombosis of main portal vein, porto-splenic confluence and proximal SMV with porto-systemic venous collaterals in the peri-portal, peripancreatic, splenic hilar regions.
- Liver shows diffuse, heterogeneous contrast enhancement suggestive of parenchymal liver disease. A small hemangioma in liver in Segment VI and multiple simple hepatic cysts.
- Moderate ascites with small peritoneal nodules ? malignant deposits.
- Mild prostatomegaly.
- A small mildly enhancing nodular lesion in the right lateral abdominal wall could be a metastatic deposit.
- Simple renal cortical cysts.
- Mild, circumferential, edematous wall thickening of the cecum and ascending colon. This is most likely related to portal hypertension or inflammatory in etiology, unlikely to be neoplastic.

Suggest: CT guided biopsy of the upper retroperitoneal mass/ retroperitoneal lymphnodes, ascitic fluid cytology.

PLAIN CT STUDY OF BRAIN

Clinical Indication: Headache

Technique: Serial axial sections of the brain were obtained from the base of skull to the vertex

Findings:

Subcentemetric acute lacunar infarct noted involving right lentiform .

Rest of the supratentorial brain parenchyma shows normal morphology.

The gyral /sulcal pattern is normal .

There is no evidence of any obvious intra cranial space occupying mass lesion

The lateral, third and fourth ventricles are of normal size, shape and position.

The supratentorial and basal cisterns and extracerebral CSF spaces are mildly prominent.

There is no mass effect, shift of midline structures or cerebral edema.

The brain stem structures are normal in attenuation.

Mucosal thickening noted in the right maxillary sinus with sclerosis and thickening of posterior sinus wall

Bones are normal.

IMPRESSION:

- **Subcentemetric acute lacunar infarct involving right lentiform .**
- **Age appropriate diffuse cortical atrophy**
- **No bleed in present study**
- **Chronic right maxillary sinusitis**

HRCT CHEST (PLAIN)

Technique: Plain axial HRCT scan of the chest has been performed with retrospective 2D multiplanar reconstruction. The study reveals,

Findings:

LUNG PARENCHYMA:

Diffuse subpleural interlobular and intralobular septal thickening with areas of honeycombing is seen in both the lung parenchyma with greater involvement of both the lower lobes.

Fibrobronchiectatic and fibrocalcific collapse is seen of the apical and posterior segment of the right upper lobe lung parenchyma.

TRACHEOBRONCHIAL TREE:

Trachea and major bronchi are normal.

MEDIASTINUM:

No evidence of significant mediastinal / hilar lymphadenopathy.

Mediastinal vasculature appears normal in size.

Calcific plaques in descending thoracic aorta.

Cardiac chambers are normal in size. No pericardial effusion.

PLEURA, DIAPHRAGMS AND THORACIC WALL

No e/o pleural effusion or thickening.

A small right D6 hemivertebra noted with resultant moderate to severe scoliotic deformity in the dorsal spine with apex at D6 and convexity to the right.

The ribs and other visualised bones are unremarkable.

Visualised abdominal CT sections are unremarkable.

Conclusion:

- **Diffuse subpleural interlobular and intralobular septal thickening with areas of honeycombing in both the lung**

parenchyma with greater involvement of both the lower lobes. This is suggestive of Interstitial Lung Disease (ILD)- UIP (Usual interstitial pneumonitis) pattern.

- Fibrobronchiectatic and fibrocalcific collapse is seen of the apical and posterior segment of the right upper lobe lung parenchyma. This is suggestive of sequel to old healed infection.

CT SCAN OF NECK (PLAIN + CONTRAST)

Clinical profile: Swelling in neck on the right side.

Prior imaging: Not available for comparison.

Protocol: Plain and intravenous contrast enhanced axial CT scan from base of skull till carina with retrospective 2D reconstruction was performed on a MDCT scanner.

Findings:

A large approximately 9.3 x 7.5 cm sized moderately and heterogeneously enhancing mass lesion is seen involving the right lobe of thyroid, right lateral and anterior wall of the cricopharynx, right pyriform sinus.

The mass medially extends into the tracheo-esophageal groove and further into the left lobe of thyroid.

The mass is partially encasing the trachea with its luminal narrowing. The mass also partially encases the right common carotid artery and right IJV with compression and luminal narrowing of the Right IJV.

Laterally, a large necrotic component of the mass extends into the subcutaneous region of right side of neck producing a cutaneous bulge. Laterally, it shows loss of fat plane with sternocleidomastoid muscle.

Inferiorly the lesion extends into the upper chest in right paratracheal region.

Few enlarged lymph nodes are seen adjacent to the mass on the cranial aspect in right level II.

The mass shows loss of fat plane with thyroid and cricoid cartilages.

A 4.5 x 3.2 cm sized lobulated, moderately enhancing mass lesion is seen in the left level IV of the neck which shows calcific foci within.

Lymph nodes showing similar enhancement are seen in Left Level II and III.

Few enlarged lymph nodes seen in upper mediastinum in pretracheal and paratracheal regions.

Both the aryepiglottic folds, left pyriform sinuses and valleculae are normal.

True and false vocal cords are normal.

The nasopharynx and oropharynx are normal.

Bilateral palatine tonsils, uvula and epiglottis appear normal.

Bilateral carotid arteries and jugular veins are well-opacified and normal.

A small lytic area in the C7 vertebral body.

Rest of the visualized bones are normal.

Fibrocalcific changes seen in both upper lung parenchyma.

Conclusion:

- **Large heterogeneous enhancing mass lesion with a large necrotic component on right side involving the right lobe of thyroid, right lateral and anterior wall of the cricopharynx, right pyriform sinus and medially extending into the the tracheo-esophageal groove and further into the left lobe of thyroid with partial encasement and compression of trachea, cricopharynx, Right carotid artery, IJV and laterally a necrotic component is seen producing a cutaneous bulge as described in detail above is suggestive of maligant neoplastic etiology, most likely Thyroid carcinoma.**
- **Large lobulated, moderately enhancing mass lesion is seen in the left level IV of the neck which shows calcific foci within suggestive of metastatic lymphnode mass. Few metastatic lymph nodes in Left Level II and III.**
- **Few enlarged lymph nodes in right level II are more likely metastatic, less likely reactive.**
- **A small lytic area in the C7 vertebral body more likely benign, less likely mets.**

Suggest: Biopsy and Histopathological correlation.

CT Bilateral Upper Limb Angiography

Technique: CT bilateral upper limb angiography was performed followed by retrospective 2D reconstruction on a MDCT scanner with thin sections. The aorta, carotids, and circle of willis also covered in the study.

Findings:

Bilateral subclavian arteries are normal in course, calibre and branching pattern.

Bilateral axillary arteries are normal in course, calibre and branching pattern.

Bilateral brachial arteries are normal in course, calibre and branching pattern.

Bilateral radial and ulnar arteries show adequate contrast opacification.

Visualised digital arteries appear normal.

No obvious thrombosis noted.

The aortic arch and its branches are normal.

The aorta and its branches are normal in course caliber and branching pattern.

The carotids and circle of Willis are normal in course caliber and branching pattern.

Cardiac chambers appear normal.

IMPRESSION:

No significant abnormality detected.

CT SCAN OF RIGHT KNEE JOINT

Clinical History: Trauma

Prior: None

Technique: Contiguous axial sections for right knee joint were taken. 3D reconstruction is obtained as well.

Findings:

Mildly displaced fracture is seen at the proximal tibia - involving its antero-medial part extending till tibial articular surface, medial tibial intercondylar eminence.

Mildly displaced fracture is also seen at fibular head.

Minimal knee joint effusion is seen.

Rest of the visualised parts of femur, tibia, patella and fibula appear unremarkable.

Soft tissue swelling is seen around the knee joint.

Impression:

1. Fracture at proximal tibia medially extending till articular surface.
2. Fracture at fibular head.
3. Minimal knee joint effusion.