



KARNATAKA RADIOLOGY EDUCATION PROGRAM

CASE PRESENTATION

**Case of fibrolamellar HCC vs Mass forming intrahepatic
cholangiocarcinoma**

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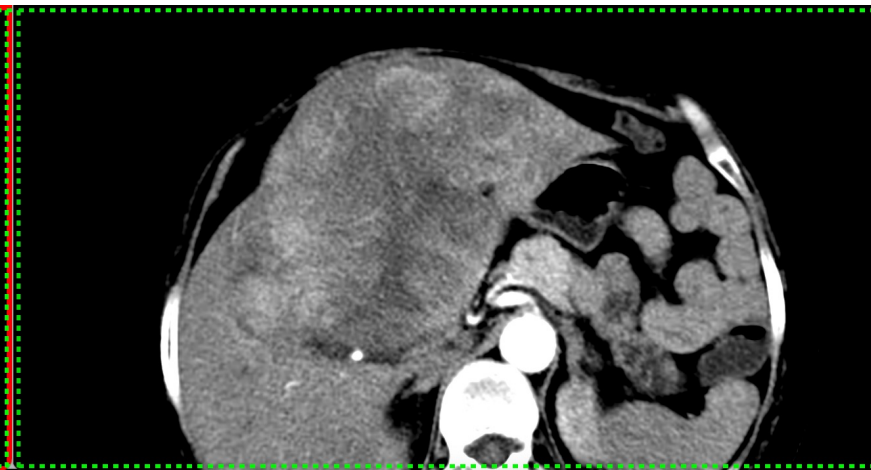
CLINICAL HISTORY

- A 50 year old female came with complaints pain abdomen in epigastric & right hypochondriac regions since 4 months and weight loss
- On examination- hepatomegaly and right hypochondriac region tenderness
- mass palpable per abdomen in right hypochondriac region
- Triple phase contrast abdomen CT was performed on 25.01.2025

plain



arterial



porto-
venous

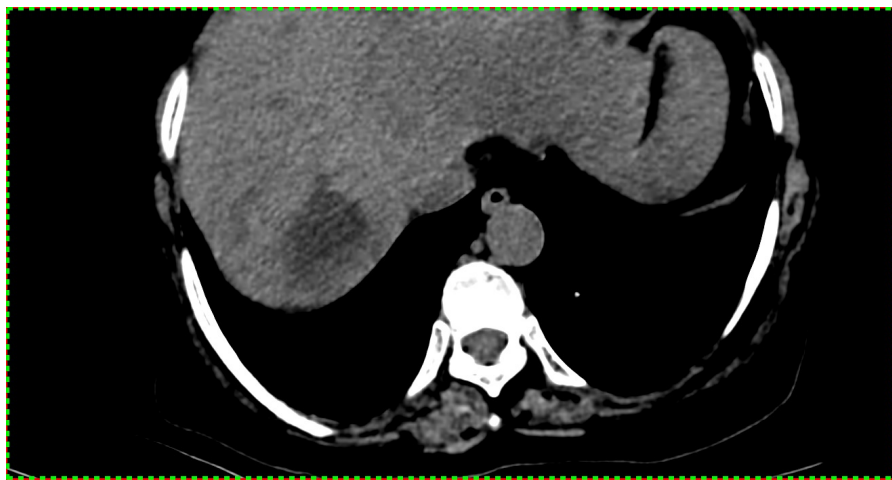


delayed

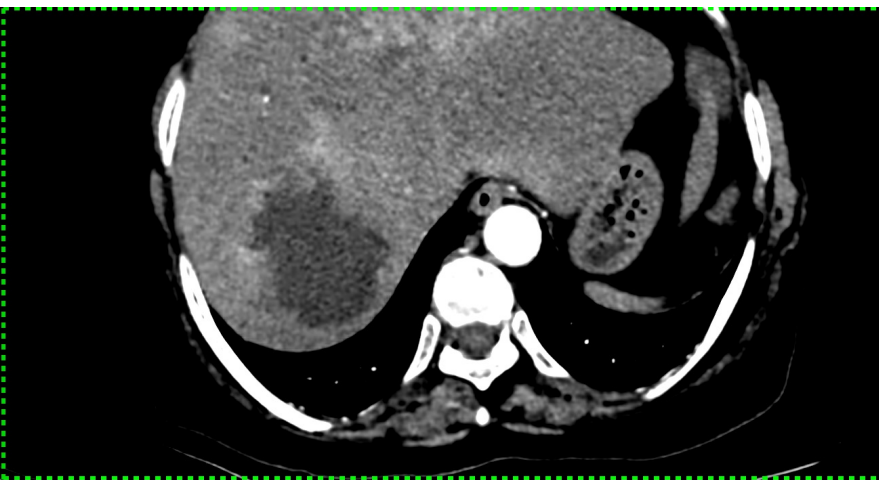




plain



arterial



porto-
venous



delayed



FINDINGS

- Liver shows a large isodense lesion in segment IVa, IVb, V and VIII which showing **peripheral areas of irregular enhancement in arterial phase** which are **further enhancing in porto-venous & venous phases** with central non-enhancing necrotic areas and **washout in delayed phase**.
- The lesion shows **ill-defined fat planes with fundus & proximal body of gall bladder** with heterogeneously enhancing thickening of gall bladder walls.
- There is seen a heterogeneously enhancing isodense lesion in **porta hepatis** showing ill-defined fat plane with above mentioned lesion- likely to be **extracapsular extension of mass lesion / metastatic porta hepatis group of lymph node**- causing mass effect on CBD in its proximal portion resulting in its mild intrahepatic biliary radical dilatation.
- There is seen **another similar isodense lesion** in segment VII of right lobe showing peripheral areas of enhancement in arterial phase which are further enhancing in porto-venous & venous phases with central non-enhancing necrotic area.

DIFFERENTIALS TO BE CONSIDERED

- Fibrolamellar variant of HCC
- Intrahepatic cholangiocarcinoma

Mass Forming Intrahepatic Cholangiocarcinoma- MF ICC

POINTS IN FAVOUR	POINTS AGAINST
Peripheral arterial enhancement with centripetal filling in porto-venous & venous phases	Washout in delayed pahse
Central scar	Contour bulge [capsular retraction]
Satellite lesion	Porta heaptis lymph node- similar enhancement pattern [ICC- delayed enhancement]
Intrahepatic biliary radicals dilatation	Age [older >60 yrs]
Ill-defined margins with GB	Gender [Male predominance]

MF- ICC

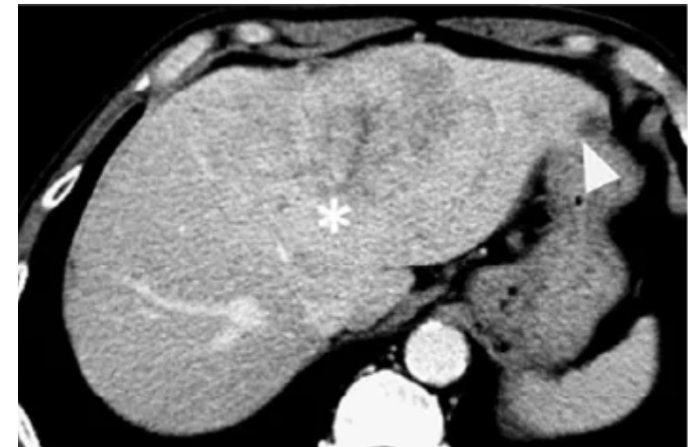


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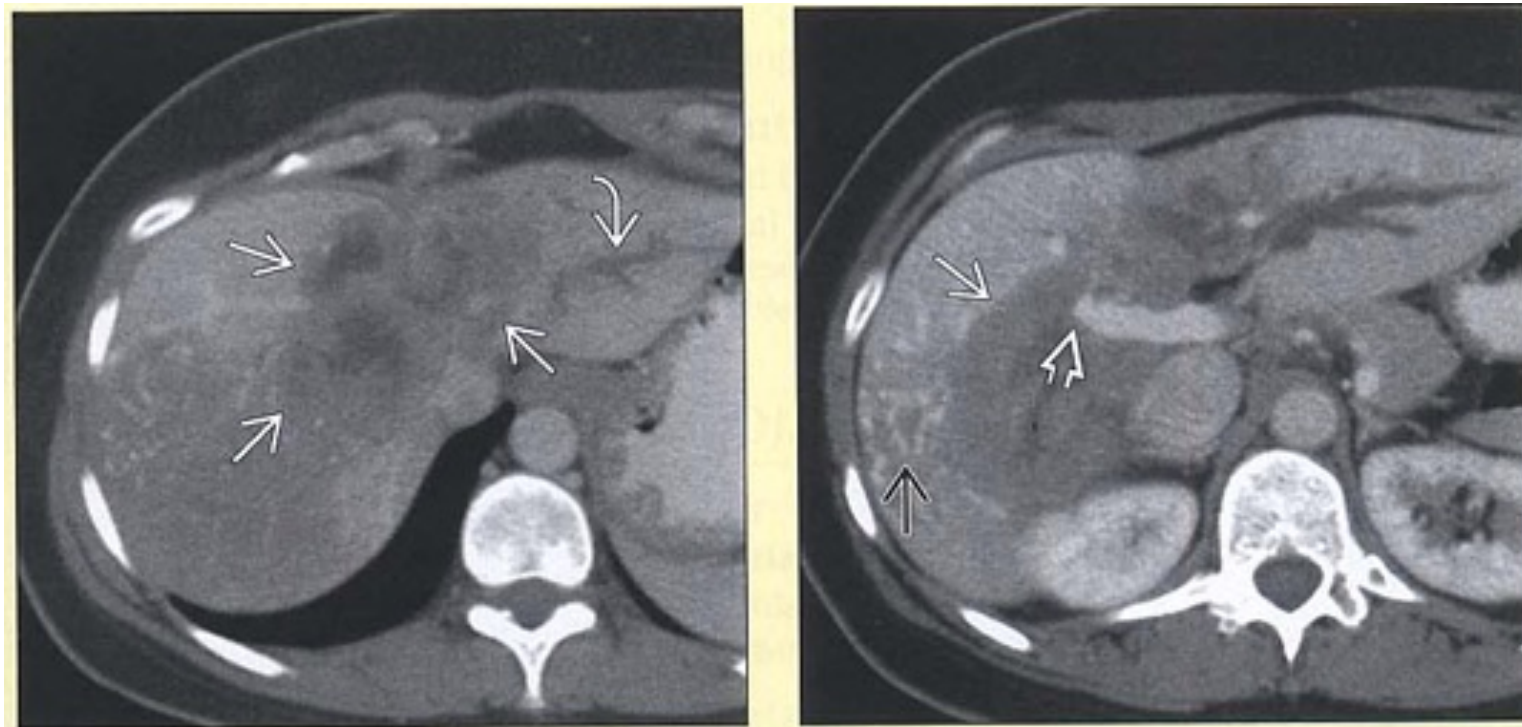
arterial

- The initial plain CT scan showed a **mass lesion** at the left lobe liver (asterisk) with a **satellite nodule** (arrowhead).
- The primary tumor revealed **hepatic capsular retraction**(arrow)
- Hypervascularity with peripheral enhancement in the arterial phase, and delayed central enhancement in the portal venous phase.



porto-venous

MF- ICC



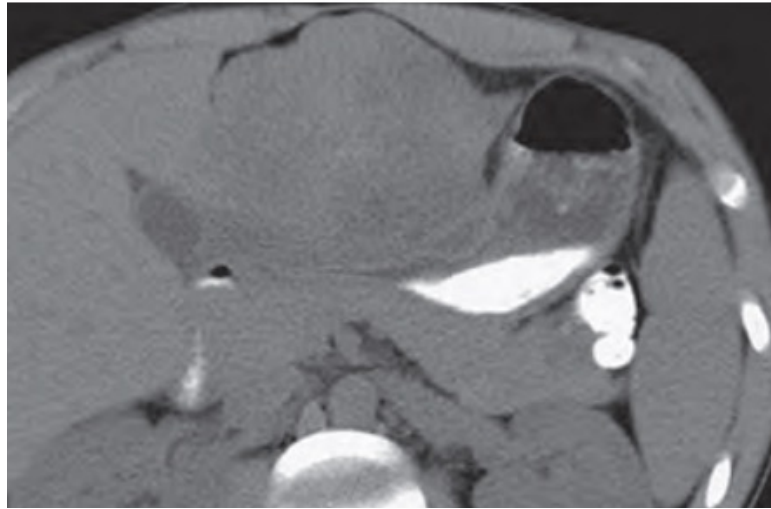
45 year old man- axial CECT image in porto-venous phase showing heterogeneously enhancing mass in right lobe with altered enhancement of right lobe and dilated biliary radicals in left lobe

Portal vein and hepatic veins are encased by the tumor resulting in collateral vessels in right lobe

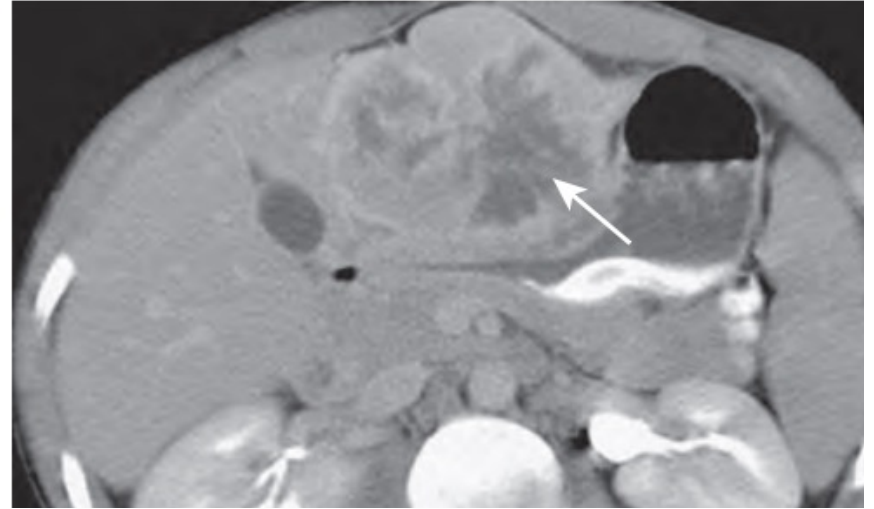
Fibrolamellar Variant of HCC

POINTS IN FAVOUR	POINTS AGAINST
Arterial enhancement	Further enhancement in porto-venous & venous phases
Central scar	No calcifications within scar
Satellite lesion (20%)	Biliary obstruction [rare in FL-HCC]
Porta hepatis lymph node- similar enhancement pattern	Ill-defined margins with GB [sharp margins]
	Age [seen in Young adults: 20- 40yrs]

FL- HCC

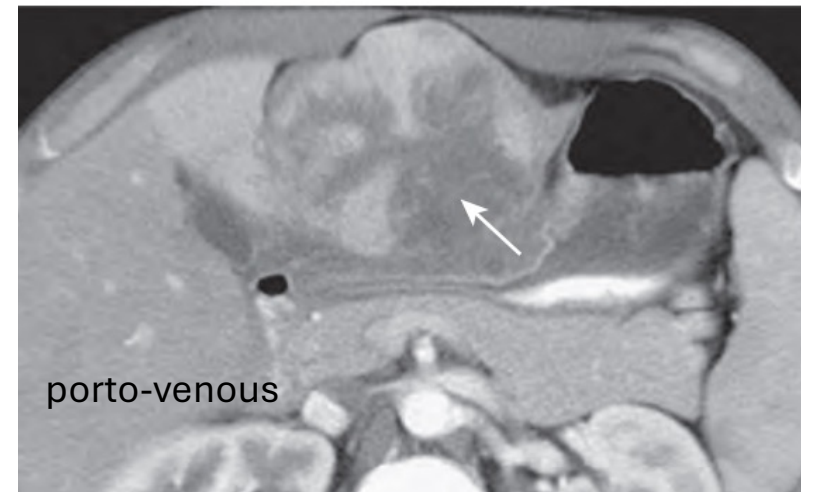


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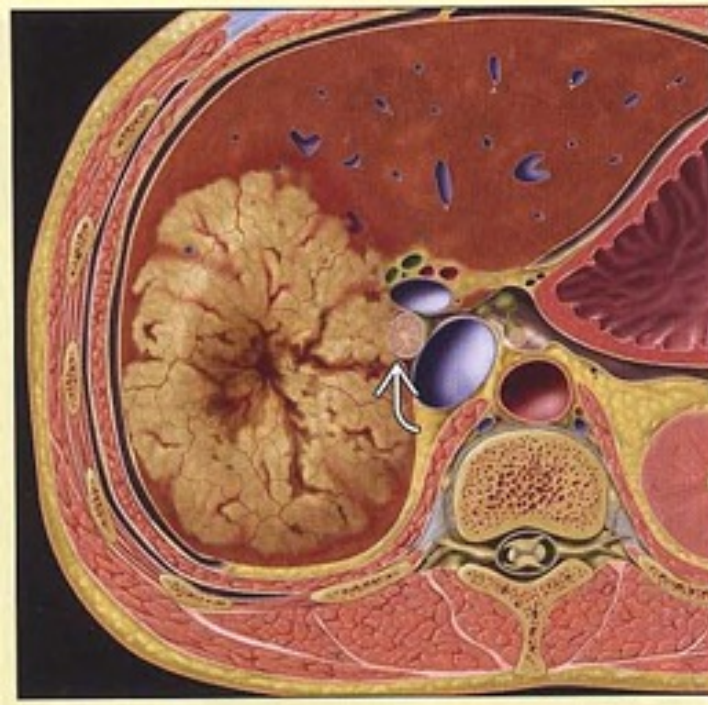
arterial

- CT scan shows an ill-defined low-attenuation area in the left lobe of the liver in plain study
- Enhanced arterial phase CT scans improve definition of the lesion.
- Note the central low-density area representing necrosis and scar tissue in arterial & porto-venous phases

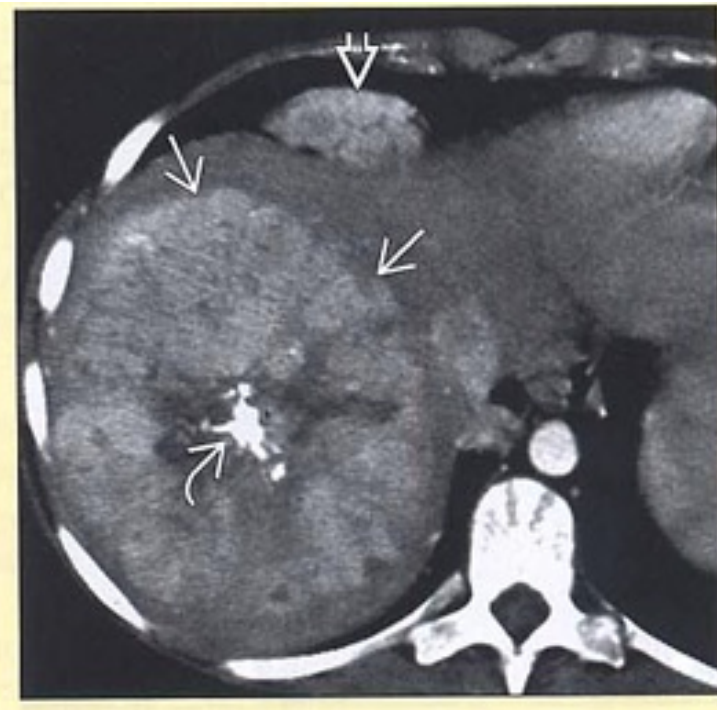


porto-venous

FL- HCC



Graphic image showing- heterogenous hypervascular mass with porta hepatis lymph node



CECT axial image of a 15 year old boy showing large heterogenous hypervascular mass in liver with calcified central scar and cardiophrenic lymphadenopathy (similar enhancement)

FOLLOW-UP

REFERENCES

1. REFERRED TO DR V.V. HATTIHALI ON 29/1/25 I/V/O MASS PER ABDOMEN FOR USG GUIDED BIOPSY

LIVER BIOPSY DONE ON 31/1/25

IMPRESSION - FEATURES ARE S/O CHOLANGIOCARCINOMA AND ALSO ADVISED TO R/O FIBROLAMELLAR VARIANT OF HCC

2. REFRRRED TO MEDICINE ONCOLOGY PN 8/2/25 I/V/O ?CHOLANGIOCARCINOMA , ? HCC

ADVICE - PALLIATIVE CHEMOTHERAPY