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KARNATAKA RADIOLOGY EDUCATION PROGRAM



Hydatid disease of the liver : A zoonotic threat to the hepatobiliary system

PRESENTED BY : DR VISRUTH (2ND YEAR POST GRADUATE)

GUIDED BY: DR SANATH KUMAR (SENIOR RESIDENT)

DEPARTMENT OF RADIOLOGY, SUBBAIAH INSTITUTE OF MEDICAL SCIENCES

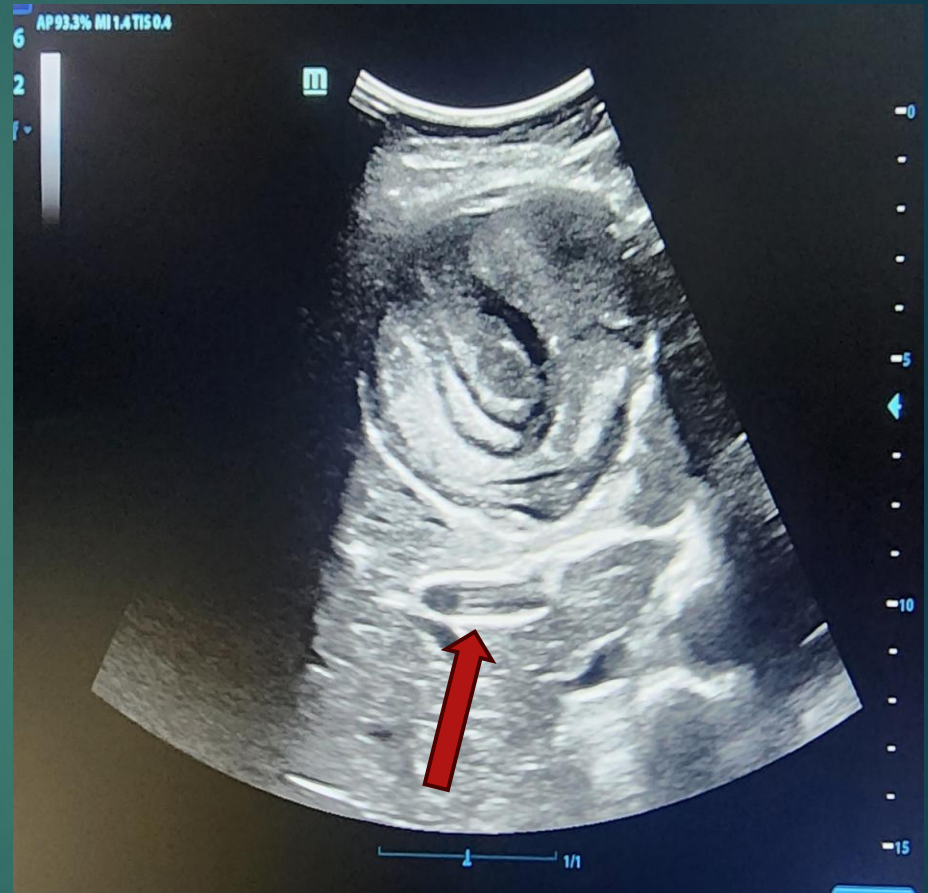
CLINICAL DETAILS

71-year-old patient presented for ultrasound with chief complaints of

- Pain and tenderness in the epigastric region
- Fever 1 week back

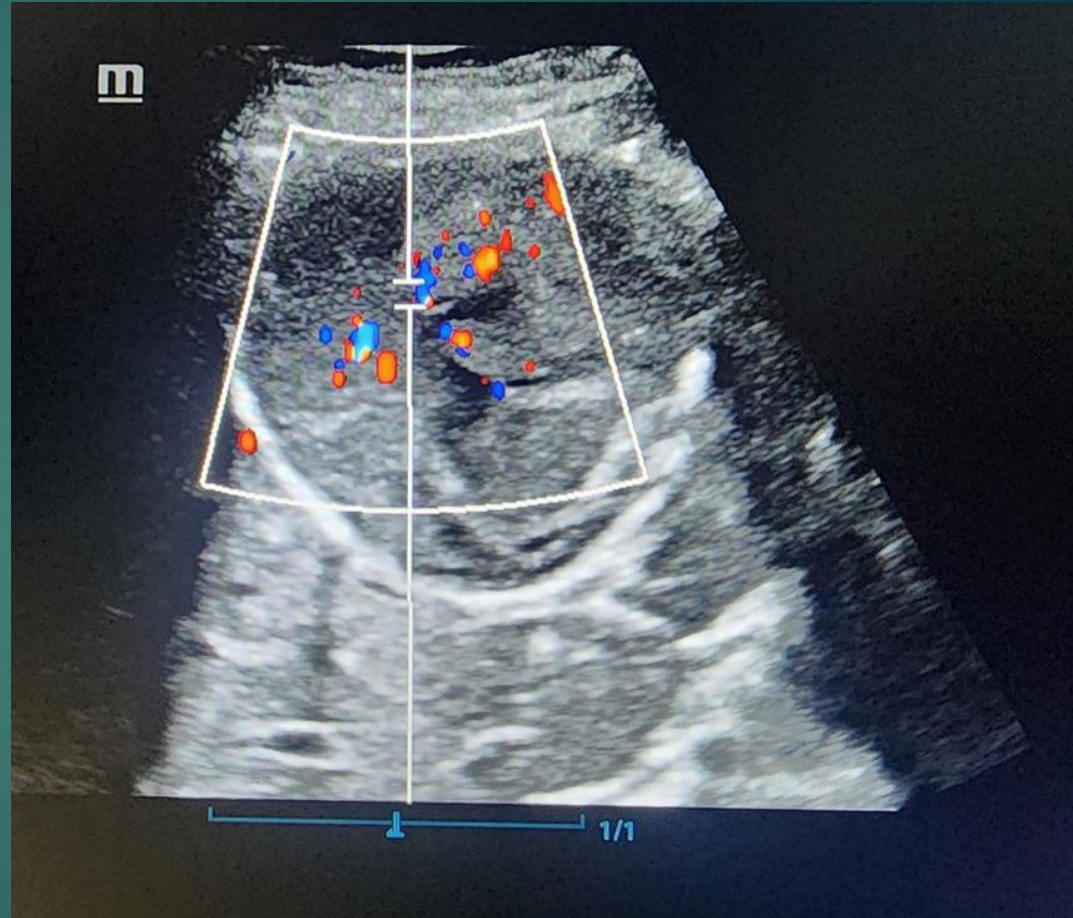
ULTRASOUND FINDINGS

- Well encapsulated, thick walled heterogeneous iso to hyperechoic solid mass with multiple hypoechoic curvilinear echoes clustered within mass in left lobe of liver.



ULTRASOUND FINDINGS

- On colour Doppler, the lesion shows internal vascularity.



Differentials

- Hydatid cyst of the liver
- Liver abscess
- Hepatocellular carcinoma
- Metastatic liver disease

DISCUSSION

Based on morphology the cyst can be classified into four different types

- type I: simple cyst with no internal architecture
- type II: cyst with daughter cyst(s) and matrix
- type IIa: round daughter cysts at the periphery
- type IIb: larger, irregularly shaped daughter cysts occupying almost the entire volume of the mother cyst
- type IIc: oval masses with scattered calcifications and occasional daughter cysts
- type III: calcified cyst (dead cyst)
- type IV: complicated cyst, e.g. ruptured cyst

DISCUSSION

The Gharbi ultrasound classification consists of five stages

- stage 1: homogeneously hypoechogenic cystic thin-walled lesion
- stage 2: septated cystic lesion
- stage 3: cystic lesion with daughter lesions
- stage 4: pseudo-tumour lesion
- stage 5: calcified or partially calcified lesion (inactive cyst)

DISCUSSION

- CT and MRI imaging are indicated when considering surgical treatment, particularly in regions like the brain, spine, and locations inaccessible for conventional radiography or ultrasound, or in case of diagnostic uncertainty.



THANK YOU!