

## **Silent Infarct: Incidental Segment III Liver Infarction Unveiled by CEUS and CT**

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### **Abstract:**

Liver infarction is a rare occurrence due to the dual vascular supply from the hepatic artery and portal vein. The incidence of liver infarction is low, with only a few reported cases of isolated segment III infarction. We present a case of an incidental liver mass, later identified as segment III infarction on contrast-enhanced ultrasound (CEUS). A 74-year-old man was found to have a large mass in the left liver lobe. The lesion remained indeterminate, and further evaluation with MRI using a hepatocyte-specific contrast agent was recommended. However, due to the presence of a pacemaker, MRI was contraindicated. Instead, CEUS was performed, revealing segment III liver infarction. CEUS demonstrated diffuse hypo echogenicity in segment III extending to the hepatic capsule, measuring approximately 10 cm. On post-contrast phases, persistent hypovascularity was noted. The segmental branch supplying segment III could not be visualized. These findings were characteristic of infarction, helping to differentiate it from abscess, tumour, or fatty infiltration. Liver infarction, particularly in isolated segments, is uncommon and often asymptomatic. MRI is considered the gold standard. However, CEUS serves as a viable alternative. The hallmark imaging feature is a wedge-shaped, non-enhancing region. Recognizing infarction is crucial to avoid misdiagnosis as a malignant lesion.

### **Keywords:**

Liver infarction, MRI, CEUS, segment III.