

Images in Medicine

Contrast-Enhanced Ultrasound (CEUS) for Evaluating Indeterminate Liver Lesions During Pregnancy: A Case Report

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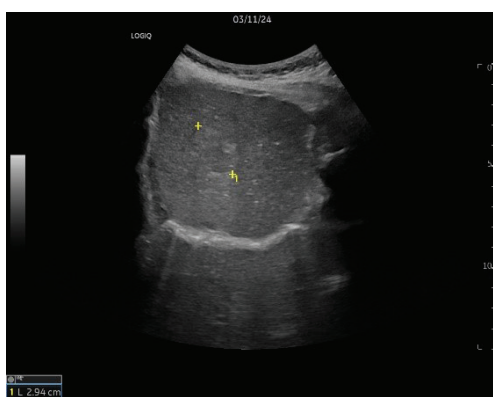


Figure 1. Detected liver lesion

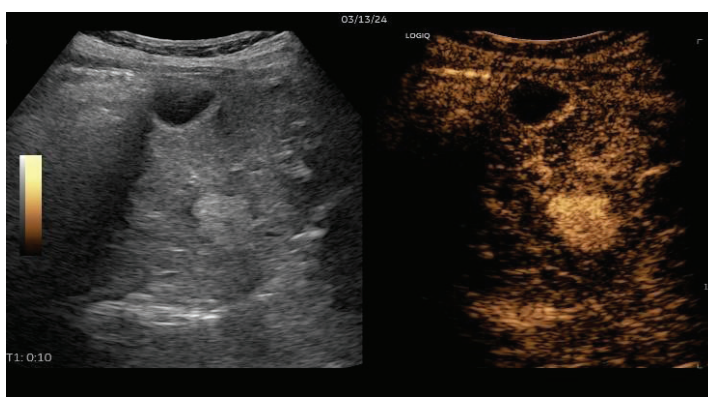


Figure 2. Arterial phase (10 seconds)

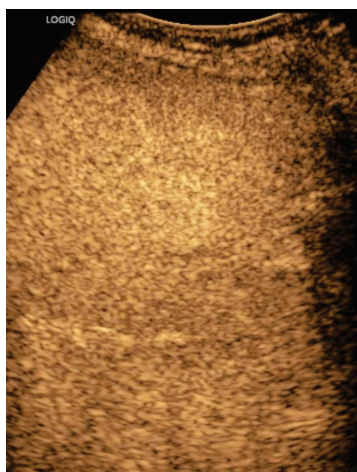


Figure 3. Delayed phase (120 seconds)

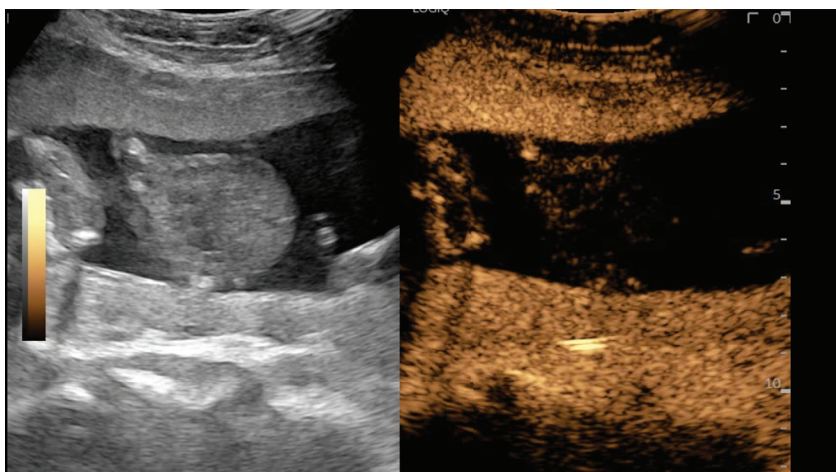


Figure 4. No contrast in baby (artifact is from bones)

We report a case of a 34-year-old woman diagnosed with HER2-positive breast cancer at 12 weeks of pregnancy. The oncology team opted for neoadjuvant chemotherapy while continuing the pregnancy. To exclude metastatic liver disease, CT was not feasi-

ble due to radiation risks, and liver MRI was avoided due to concerns about gadolinium deposition in the fetal basal ganglia.

At 16 weeks of pregnancy, an abdominal ultrasound revealed an indeterminate liver lesion in segment VIII, measuring 30mm and

mostly isoechoic (Figure 1). To further evaluate the lesion, we performed a contrast-enhanced ultrasound (CEUS) using 1,8ml of a microbubble contrast agent intravenously.

Current evidence suggests that microbubble contrast agents do not cross the placental barrier (1).

To our knowledge, only two studies have been conducted on eleven patients. Although off-label, this data supports the safety and efficacy of microbubble contrast agents in pregnancy (2,3).

During the arterial phase, the lesion showed quick centrifugal enhancement (Figure 2), and in the portovenous and delayed phases, there was no washout (Figure 3), suggest-

ing a benign lesion typical of focal nodular hyperplasia (FNH). No other liver lesions were detected. The baby was briefly checked afterwards, with no contrast beyond placenta and normal heartbeat (Figure 4).

Consent: The authors have obtained written consent from the patient to submit and publish this case report, including images and accompanying text, in accordance with COPE guidelines.

Author Contribution: Conceptualization, Formal Analysis, Methodology, Writing – Original Draft, and Writing – Review & Editing were carried out by Ajdin Smajlovic.

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