HHS Public Access

Author manuscript

Ann Emerg Med. Author manuscript; available in PMC 2018 September 01.

Published in final edited form as:

Ann Emerg Med. 2017 September ; 70(3): 301–337. doi:10.1016/j.annemergmed.2017.03.002.

Peripartum patient with epigastric pain

Davinia Ryan, MBBCh, BAO[1], **Giuseppe Cruciata, MD**[2], **Pier Luigi Di Paolo, MD**[3], **Serena Monti, PhD**[4], and **Lorenzo Mannelli, MD, PhD**[1]

[1]Department of Radiology, Memorial Sloan Kettering Cancer Center, 1275 York Avenue, New York, NY 10065, USA

[2]Department of Radiology, Maimonides Medical Center, 4802 10th Ave, Brooklyn, NY 11219, USA

[3]Department of Imaging, Bambino Gesu' Children's Hospital, Rome, Italy

[4]IRCCS SDN, Naples, Italy

A 44-year-old female, gravida 2, para 1, abortus 1, presented to the emergency department with epigastric pain, vomiting and nosebleed at 36 weeks gestation. She had right upper quadrant tenderness and was hypertensive at 138/90 mmHg. Laboratory studies demonstrated decreased platelets of 122 k/mcL, Hb of 11.2 g/dL and RBC of 3.48 M/mcL, elevated AST of 371 U/L and ALT of 522 U/L, and proteinuria of 13 mg/dL.

Ultrasound showed a mass-like lesion in the right hepatic lobe (Fig 1). Emergency caesarean section was performed for hemolysis, elevated liver enzymes and low platelets syndrome (HELPP syndrome) with delivery of a healthy neonate. Intravenous magnesium sulfate initiated, with normalization of blood pressure and liver enzymes. Postpartum MRI liver (Fig 2) demonstrated a 9.0 cm right hepatic lobe ill-defined, heterogeneous lesion. Repeat MRI at 50 days demonstrated almost complete resolution of the liver lesion (Fig 3).

DIAGNOSIS

Peripartum intrahepatic laceration HELPP syndrome. HELLP syndrome is a complication of pregnancy (1). A rare life-threatening complication is hepatic laceration (2). It can be suspected when the right upper quadrant is tender due to hepatic capsular distention. Imaging can help to diagnose liver hemorrhage (3). Liver laceration can be diagnosed with ultrasound, CT, or MR; however, CT is faster, readily available, and may assess for intra-peritoneal blood if there is capsular rupture. Treatment includes delivery for pregnancies ≥34

Corresponding author (reprint requests should be sent to): Lorenzo Mannelli, M.D., PhD, Department of Radiology, Memorial Sloan Kettering Cancer Center, 1275 York Avenue, C276, New York, NY 10065, USA, Tel. 212-639-7293; Fax 212-794-4010, mannellilorenzo@yahoo.it.

Institution where work was performed: Memorial Sloan-Kettering Cancer Center, Department of Radiology, 1275 York Avenue, New York, NY 10065, USA

Disclosure: MSK Cancer Center Support Grant/Core (P30 CA008748)

weeks. If <34 weeks, fetal lung development needs to be evaluated before delivery. Medical treatment includes corticosteroids, magnesium sulfate, and antihypertensives (4).

References

1. Prichard JA, Weisma R Jr, Ratnoff OD, Vosburgh GJ. Intravascular hemolysis, thrombocytopenia and other hematologic abnormalities associated with severe toxemia of pregnancy. N Engl J Med. 1954; 250:89–98. [PubMed: 13119851]
2. Hay EH. Liver disease in pregnancy. Hepatology. 2008; 47(3):1065–1076.
3. Nunes JO, Turner MA, Fulcher AS. Abdominal imaging features of HELLP syndrome: a 10-year retrospective review. AJR Am J Roentgenol. 2005; 185(5):1205–1210. [PubMed: 16247135]
4. Sibai BM, Barton JR. Expectant management of severe preeclampsia remote from term: patient selection, treatment, and delivery indications. Am J Obstet Gynecol. 2007; 196:514e1–9. [PubMed: 17547875]

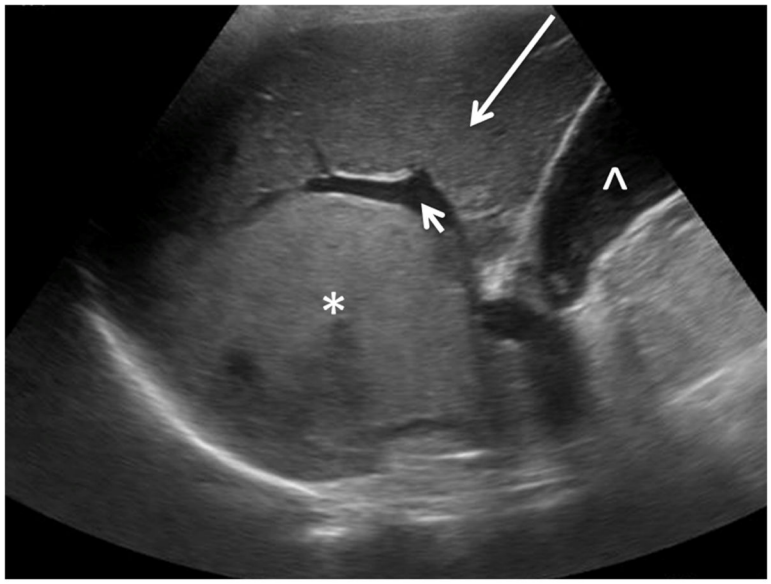

Fig 1.

Longitudinal ultrasound image through the liver demonstrating landmarks including the diaphragm (bright line lower left of image), portal vein (short arrow) and stomach (^) as well as a heterogeneous right hepatic lobe mass measuring 8.9 × 7.7 cm (*), with the right lobe of liver (long arrow) being homogenous in echotexture.

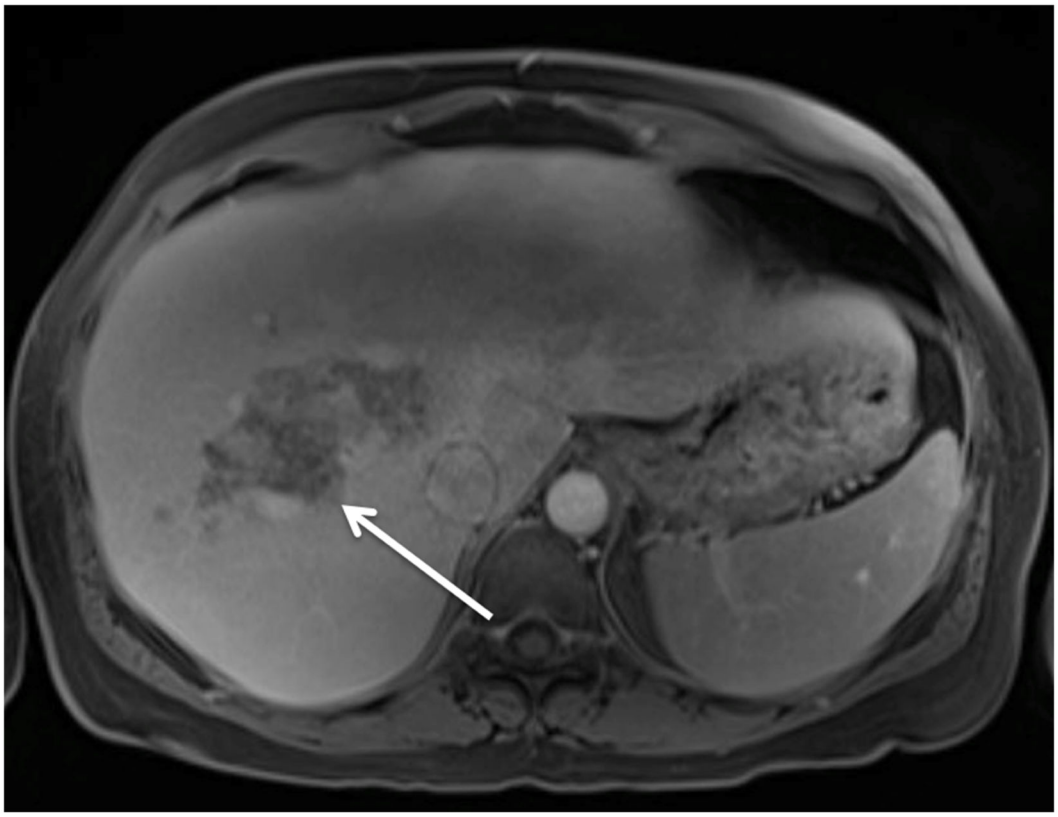

Fig 2.

Fig 2 Left Panel. MRI showing a 9.0 cm heterogeneous liver lesion without significant enhancement.

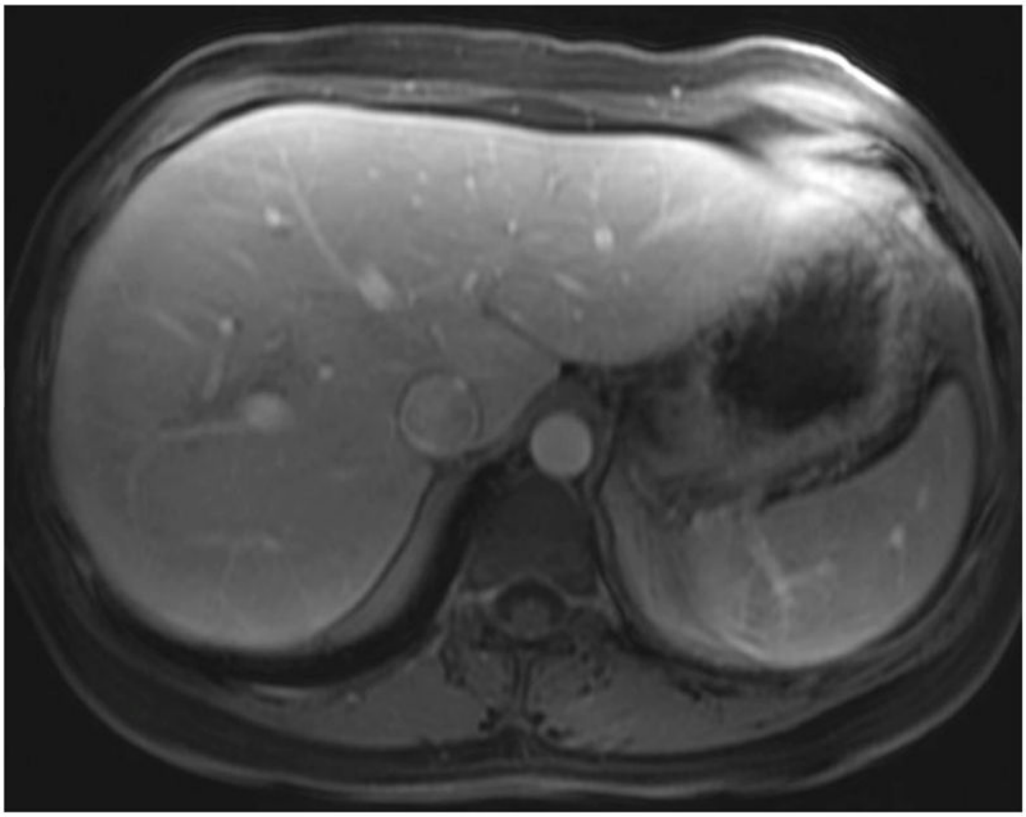

Fig 3.

Fig 2 Right Panel. MRI showing almost complete resolution of the heterogeneous liver lesion.