Life-Threatening Hemorrhage from Adenomas in the Liver during Pregnancy

Jan H.M.B. Stoot^a Jos van Roosmalen^b Onno T. Terpstra^a
Alexander F.M. Schaapherder^a

Departments of ^aSurgery, and ^bObstetrics, Leiden University Medical Center, Leiden, The Netherlands

A primi gravida at term was admitted to a peripheral hospital with sudden right upper abdominal pain and diagnosed as having pre-eclampsia. Labor was induced and she was referred to our hospital because of increasing pain and decreasing hemoglobin levels. At admission, ultrasound examination showed a possible liver hematoma and free abdominal fluid. After delivery of a healthy girl, she remained hemodynamically instable. A contrast-enhanced CT scan revealed four lesions in the liver resembling adenomas and free peritoneal fluid (fig. 1). The patient could not be stabilized with conservative treatment. Selective embolization of the right hepatic artery was performed successfully (fig. 2). She was discharged home 2 weeks later.

Hemorrhage in pregnancy from ruptured liver adenomas is rare and therefore easily misdiagnosed. Presentation may be with severe pain localized to the epigastrium or right upper quadrant of the abdomen with radiation to the back or right shoulder. These symptoms might be misinterpreted as dyspepsia or cholecystitis. Delay in diagnosing rupture of the liver will contribute to high mortality rates. It is essential to get the diagnosis at once, preferably using contrast-enhanced CT scanning. We suggest that selective arterial embolization is a valuable tool in the acute phase of hepatocellular adenoma bleeding.

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Fig. 1. Contrast-enhanced CT scan of the liver showing several adenomas; the largest in segment V (10 cm), with signs of recent bleeding. The other adenomas are in segments VI and VII, one suspected for recent bleeding into the abdominal cavity.

Fig. 2. Angiography of the liver after selective embolization of the right hepatic artery. Contrast fills the common hepatic artery and the left hepatic artery. Note the used coils in the origin of the right hepatic artery (arrow).