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Letter to the Editor

Management of hepatocellular adenoma during pregnancy

Although the aetiology of hepatocellular adenoma is unknown, these benign tumours seem to be related to the use of oral contraceptives (1). An association with pregnancy has also been described, probably due to increased levels of endogenous steroid hormones (3, 4). During pregnancy the risk of rupture of hepatocellular adenomas exists, and this is associated with high foetal and maternal mortality (3, 5–8). In non-pregnant women, surgical resection is often indicated in larger hepatocellular adenomas because of a proven risk of rupture (1, 2, 9) or malignant transformation (10). Successful resection of malignant hepatic tumours during gestation has been reported (11).

We report a case of a 32-year-old pregnant woman with a hepatocellular adenoma, where surgical excision was performed. At 12 weeks' gestation the patient complained of increasing epigastric pain. She had been taking oral contraceptives for 15 years and did not use either alcohol or hepatotoxic medication. Except for an elevated alkaline phosphatase level of 273 (n. 25–75) IU/L and a γ-glutamyl transpeptidase level of 72 (n. 5–35) IU/L, all laboratory results were within normal limits (including alpha-fetoprotein) and actual or past infection with hepatitis B or C was excluded. Ultrasonography followed by computed tomography demonstrated a 7×9 cm tumour in the left hepatic lobe, consistent with either hepatocellular adenoma or focal nodular hyperplasia. Subsequent ultrasonography-guided percutaneous biopsy was consistent with hepatocellular adenoma, but a highly differentiated liver cell carcinoma could not be excluded. Radiological, laboratory and histological findings, including the patient's history of oral contraceptive use during 15 years, made the diagnosis of hepatocellular adenoma most likely. Considering the risk of a rupture in case of a hepatocellular adenoma, a resection of segment II and III was performed at 13 weeks' gestation. Histological study of the tumour revealed free surgical margins of a hepatocellular adenoma in the left liver lobe. The postoperative recovery was unremarkable and the patient was discharged on the 7th postoperative day. There were no other problems during her pregnancy and the delivery was uneventful. Mother and child were in good condition 12 months after surgery.

In the last 40 years an increasing incidence of hepatocellular adenoma has been observed. In women who have never used oral contraceptives, hepatocellular adenoma develops at an annual rate of approximately 0,012 per 10.000. On the other hand, in women who have used oral contraceptives for more than 9 years, the risk of developing a hepatocellular adenoma is increased 25-fold (1). The use of oral contraceptives not only increases the risk of developing a hepatocellular adenoma, but it also increases the risk of spontaneous rupture (2). As a consequence, in patients who have been advised to discontinue oral contraception, regression of hepatocellular adenoma has been described (12). However, persistent growth of the tumour after cessation of oral contraception can occur as well (13).

Discussion about the management of hepatocellular adenoma is still going on. Once the diagnosis of hepatocellular adenoma has seen established, we advise patients to discontinue oral contraception and to avoid pregnancy. Asymptomatic tumours with a diameter of less than 5 cm are treated conservatively, i.e. discontinuation of oral contraceptive use and ultrasonographic observation (14, 15). Primary surgical resection is performed in case of an initial diameter of 5 cm or more, or in patients with serious complaints.

High levels of sex steroids and increased vascularity of the liver during pregnancy increases the chances of liver rupture (3). In a review by Bis et al. comprising 91 cases, several cases of ruptured hepatocellular adenoma with intraperitoneal haemorrhage during gestation have been described, with a reported 59% maternal and 62% foetal mortality (8). The reason for this high mortality rate might be a serious delay in diagnosis because of confusion with other diseases, like preeclampsia or pulmonary embolism, which leads to a poor general condition prior to surgery (3, 6).

Because of the unpredictable behaviour of hepatocellular adenomas and high maternal and foetal mortality rates in case of a rupture during pregnancy, we recommend resection once a large (≥5 cm) or a growing symptomatic hepatocellular adenoma is diagnosed. When a surgical procedure is performed during the second trimester, operative risks are minimal for both the mother and the foetus (16).

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