Giant hepatic adenoma managed with anatomical right hepatectomy: A case report

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Abstract

We report the case of a 38-year-old Nigerian female who presented with right hypochondrial pain. She had previously used oral contraceptive pills for about a year. Physical examination revealed tender hepatomegaly. Her liver function tests were within normal limit as well as alfa-feto protein. Abdominopelvic magnetic resonance imaging showed hepatomegaly with a lobulated mass occupying segments VII and VIII of the liver. She underwent right hepatectomy, and she recovered well post operatively. She is currently being followed up.

Introduction

Hepatic adenoma, also known as hepatocellular adenoma, is the third most common benign tumor of the liver, after hemangioma and focal nodular hyperplasia. They occur in less than 0.007-0.012% of the population.[1]

It is commonly diagnosed in women of childbearing age. Combined oral contraceptives use has been found to be a risk factor for its development.[2] It is most common between age 20 and 50 years.[2] Polycystic Ovarian Syndrome (PCOS), obesity and Klinefelter syndrome are other conditions associated with hepatic adenoma.

It constitutes a rare cause of spontaneous hemoperitoneum.[3] It is also associated with the risk of malignant transformation.[4,5] Patients with hepatic adenoma commonly present with right hypochondrial or epigastric pain. MRI with contrast is the recommended imaging for tumor characterization and subtype determination.[3,6]

We present the case of a 38-year-old housewife who presented a right hemi-liver adenoma.

Case Report

Our patient was a 38-year-old woman who complained recurrent right hypochondrial pain for six months. The pain was insidious, dull, non-radiating, not associated with meals, temporarily relieved by analgesics and with no known aggravating factor. She reported no dyspepsia, jaundice, fever, abdominal distension, vomiting, constipation, anorexia, weight loss or change in bowel habit. She had no history of previous upper abdominal surgery. She had used combined oral contraceptive for about a year. She was a known hypertensive on Lisinopril. She had 6 children: the last child was birth 3 months prior to presentation. She was ammenorheic but not pregnant, probabaly due to lactation.

General physical examination revealed a young woman who was afebrile, anicteric, obese with Body Mass Index (BMI) of 32.5kg/m^2. She showed no stigmata of chronic liver disease.

The abdomen was full, moving with respiration, there was right hypochondrial tenderness, an enlarged liver with a span of 14cm, firm and smooth surface. The spleen was not enlarged and kidneys were not ballotable. There was no ascites and rectal examination was unremarkable.

Abdominopelvic MRI showed liver enlargement with a span of 24.5cm, a huge lobulated mass measuring 13.4cm x 9.5cm involving segments VII and VIII consistent with hepatic adenoma (Figure 1).

Alpha feto protein was 2.4U/L which was normal. Liver function tests, full blood count, electrolytes and clotting profile were within normal range.

She underwent a right hepatectomy. The intra-operative findings were enlarged liver with a lobulated mass in segments VII and VIII (Figure 2 and 3). Other abdominal viscera were grossly normal.

She did well post-operatively and was discharged home on 10th post-operative day.

Histology revealed hepatocellular adenoma (Telangiactatic variant).

Discussion

Hepatic adenoma is a rare benign hepatic tumor of epithelial origin that is more commonly diagnosed in women of reproductive age, who have being taking estrogen containing contraceptive pills.[1] It occurs in 0.007-0.012% of the population.[1] The incidence is 34 per million among women using OCP but it is 1 to 1.3 per million among those not using it.[7] About 90% of hepatic adenomas are diagnosed in female while the remaining 10% are diagnosed in males.[4]

Our patient, who was a 38-year-old female, had many risk factors for the development of hepatic adenoma. She had used oral contraceptive for about a year. OCP confers the greatest risk when used for longer than five years, however, six to

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Availability of data and materials: All data generated or analyzed during this study are included in this published article.

Ethics approval and consent to participate: Our institution allows publication of case reports without ethical approval. The study is conformed with the Helsinki Declaration of 1964, as revised in 2013, concerning human and animal rights. The patient participating in this study signed a written informed consent form for participating in this study.

Informed consent: Written informed consent was obtained from a legally authorized representative(s) for anonymized patient information to be published in this article.

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twelve months exposure have been documented to be significant.[7] She was also obese and was pregnant when she first noticed the symptom. She presented with right hypochondrial pain, which is one of the most common symptoms.

Diagnosis was made in our patient based on contrast enhanced MRI which is the recommended imaging modality for initial assessment and confirmed by histology following right hepatectomy.[3,6]

Our patient had right hepatectomy which is in line with e recommendation of Deneveand colleagues in a multi-centre study involving 124 patients.[8] They recommended that any hepatic adenoma that is >4cm should be treated surgically.

Surgical management of hepatic adenoma is indicated when its diameter is at least 5 cm or has an increasing diameter (≥20%) per Response Evaluation Criteria in Solid Tumors (RECIST) criteria for solid malignant tumors.[4,9] Surgical management is also indicated when hepatic adenoma becomes symptomatic regardless of its size. Mortality following elective surgical resection is 1%.[10] The risk of malignant transformation is 4.4%.[11]

Traditionally, hepatic resection for hepatic adenoma is accomplished by open surgery. Some authors now consider laparoscopic approach a safe and effective method.[12] Regardless of the approach that is used, resection of hepatic adenoma reduces the risks of rupture and malignant transformation and it should be considered as the treatment option when indicated.

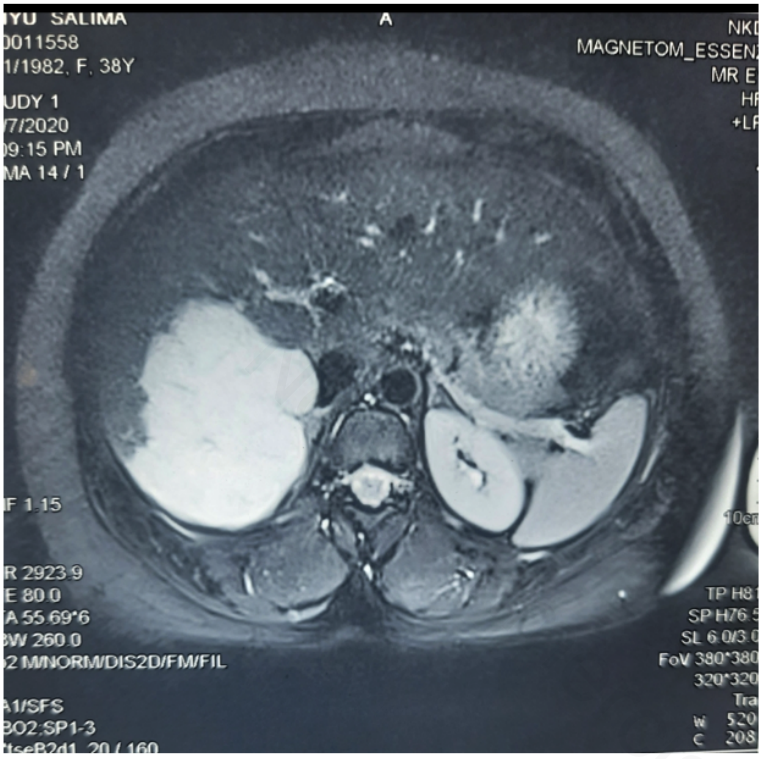

Figure 1. Contrast enhanced MRI Showing the hepatic adenoma.

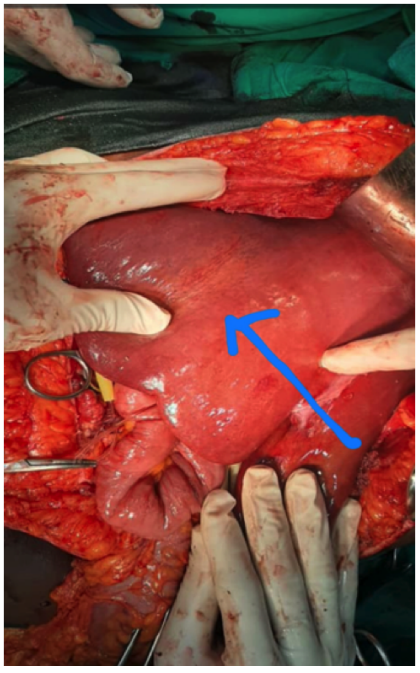

Figure 2. Ischaemic demarcation line after inflow vascular control.

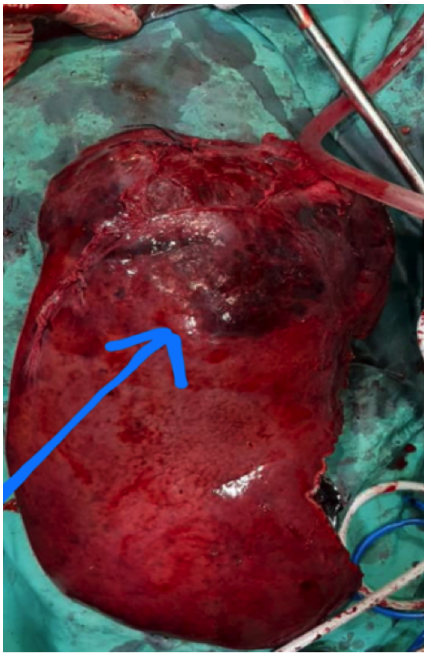

Figure 3. Resected anatomical right lobe of the liver showing the adenoma.

Conclusions

Hepatic adenoma should be suspected in an otherwise healthy young woman with a hepatic mass. Hepatectomy should be offered in a patient with a giant hepatic adenoma as was done in our patient.

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