Turk J Gastroenterol 1997; 8:247-250

Liver cell adenoma in a male patient with cirrhosis

Sirozlu bir erkek hastada karaciğer hücreli adenom

Yasemin KOŞAR[1] MD, Azmi SERİN[1] MD, Nurgül ŞAŞMAZ[1] MD,
Gülay TEMUÇİN[1] MD, Cemil EKİNCİ[2] MD, Uğur KOŞAR[3] MD

Department of Gastroenterology[1],Hospital of Yüksek İhtisas, Department of Pathology[2], Ankara University School of Medicine, Department of Radiology[3], Hospital of Numune, Ankara

ÖZET: *48 yaşındaki sirozlu erkek hastada karaciğer adenomu saptandı. Hemokromotozis, glikojen depo hastalığı gibi sistemik hastalıklar hormonal bozukluk veya herhangi bir ilaç kullanımı hastada saptanamadı. Histolojik incelemede portal alan, safra yolları ve santral venler saptanamadı. Karaciğer adenomları benigin lezyonlar olmasına rağmen, altta yatan hastalığın siroz olması ve sirozun da kendisinin hepatoma öncüsü olması açısından tartışılması uygundur.*

Anahtar Kelimeler: **Karaciğer adenomu, siroz**

SUMMARY: *Liver cell adenoma in a 48-year-old cirrhotic man is observed. Systemic diseases such as hemochromatosis, glycogen storage disease, hormonal disturbance or any kind of drug consumption were not revealed. In the histologic examination portal tracts, bile ducts and central veins were absent. Although liver cell adenomas are benign lesions it is important to discuss it from the point of underlying disease, as cirrhosis per se is a precursor of hepatocellular carcinoma.*

Key Words: **Liver cell adenoma, cirrhosis**

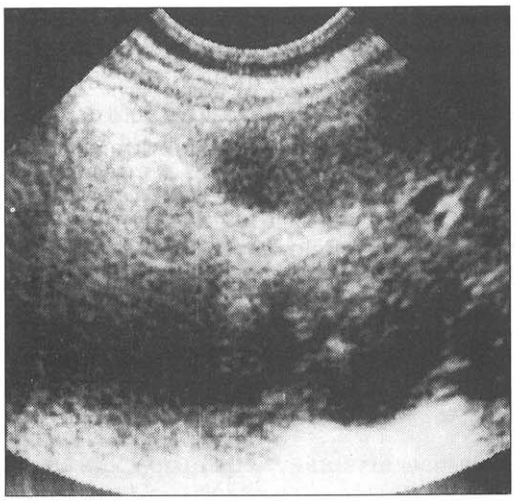
LIVER cell adenomas are very rare lesions that occur primarily in women using oral contraceptives (OC) (1,2,3,4,5). The tumor may be diagnosed incidentally or the patients apply the outpatients with right upper quadrant pain. The symptoms may be due to central cavitation with hemorrhage (5), and can lead to death usually secondary to rupture and massive intraperitoneal bleeding (1). We report a case of liver cell adenoma in a cirrhotic man. Although there are many reports published about liver cell adenoma, there is none shown in cirrhotic liver (1,2,3,4,5,6).

CASE

In December 1994, a 48-year-old man applied to the outpatient with right quadrant pain. He had no nausea and vomiting, He had hepatitis in 1979, and since then he was a carrier of HbsAg. He had no history of alcohol and no drug consumption; and on inquiring his family, no diabetics were found. He was admitted to the Gastroenterology department. On his physical examination hepatosplenomegaly was detected. The laboratory results were as follows: glucose 69 mg/dl, AST: 134 IU, ALT: 112 IU, GGT: 100IU, alkalen phosphatase 329 IU, total bilirubin 1.2 mg/dl, direct bilirubin: 0.4 mg/dl, prothrombin time: 12.1 second, WBC 7.0, RBC: 5.44, hemoglobin 16.4 gr/dl, platelets: 172.000/mm3, albumin 3.5 g/dl, total protein 6.4 g/dl, alpha fetoprotein was 9.56 (0-45) ng/ml. Oral glucose tolerance test (OGTT) was performed and it was within normal limits. His hormonal examination showed: FSH: 4 mIU (1-12 mIU/ml), testosteron 23.8 mIU/lt (8.2-3.46 mmol/lt), estrogen 10.15 pg/ml (2-50 pg/ml). The patient had HBs Ag and anti HBe positivity while anti HBs and HBe Ag were found to be negative. In addition delta antigen was negative and anti HCV positive with second generation ELISA. Tyroid function tests were normal. In his endoscopic examination; there were osephagial varices (grade I) and, portal hypertansive gastropathy in fundal region.

In the ultrasonographic examination the echogenity of liver increased and it was heterogenious. The portal and splenic vein diameters were minimally increased (14 mm) and, minimal ascites was seen. A hypoechoic lesion was detected in the quadrate lobe of the liver (4th segment) (Figure I). The ultrasonographist reported the lesion as malignant like hepatocellular carcinoma (HCC). Then the patient was sent to a reference hospital

Geliş tarihi: 19.12.1996 Kabul tarihi: 6.4.1997



Resim 1

for computed tomographic study. In the final report it was said that; the liver edges were nodular, the left lobe was hypertrophic and in the 4th segment of liver there was a 45 mm of hypodense solid lesion with regular contours. After intravenous contrast medium was applied, there was no opacification in the lesion. And the radiologist reported the lesion as benign hepatic tumor (Figure II a-b).

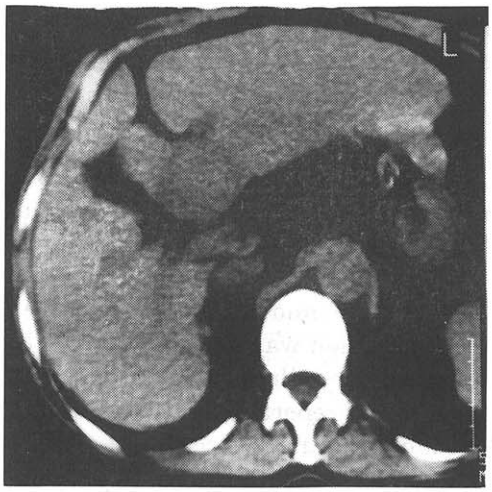
To undestand the nature of the lesion, transabdominal fine needle aspiration biopsy was performed with the guidance of ultrasonographist. The presence of quite sufficient fragments of liver parenchma containing no portal triads or bile ducts in aspirate preparations was strongly suggestive of liver cell adenoma. The sizes of the nuclei of the hepatocytes were close to the normal ones, but there were more chromotine in adenoma cells and the cytoplasm was narrower than the normal cell cytoplasm and was stained more basophilic (Figure III and Figure IV). Neoplastic differantiation was not revealed. To differentiate it from the other lesions, he underwent angiographic examination. During celiac angiography, the lesion coludn't be demonstrated, but the mass effect was shown in the region of quatrate lobe (Figure V).

After a week second blind liver biopsy was performed. The final report was cirrhosis. The pathologist revealed the fibrous septas extending from the portal tracts that were demolishing the normal structure.

DISCUSSION

Liver cell adenoma is a rare tumor, often associated with the use of oral contraceptives (1,2,3,4,5,6,7). Spontaneous existence unrelated to exogenous hormones or disease states are reported in literature as well (8). Veriying the underlying systemic disease and hemosiderozis are the most important ones (9). Especially type I glycogen storage disease is known to develop hepatic adenomas (10,11). In our patient both the fasting blood glucose and the OGTT were within normal limits, and there was no diabetic in his family. We often see glucose intolerance in HCV (+) cirrhotics and chronic active hepatitis (unpublished data) but it is not thought to be associated with viral etiology or a defect in glucose metabolism. Although the hormonal defects can be seen in cirrhosis (12), the hormonal levels are normal in our patient.

Adenomateous hyperplasia (AH) is seen in cirrhotic liver disease mostly, and it must be differentiated from liver cell adenoma, especially in a patient with cirrhosis, since AH is suspected to be a precursor lesion of HCC and a high malignant transformation is revealed in this lesion (13). Ade-



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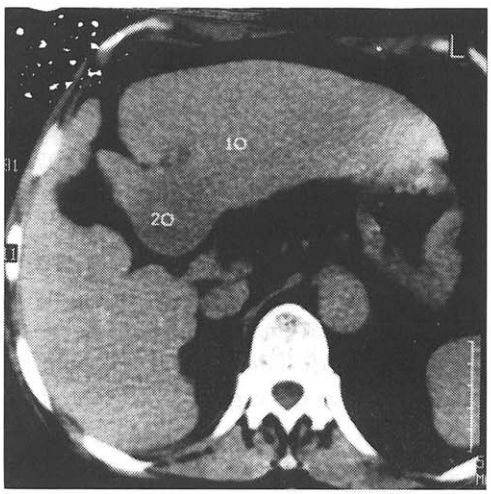

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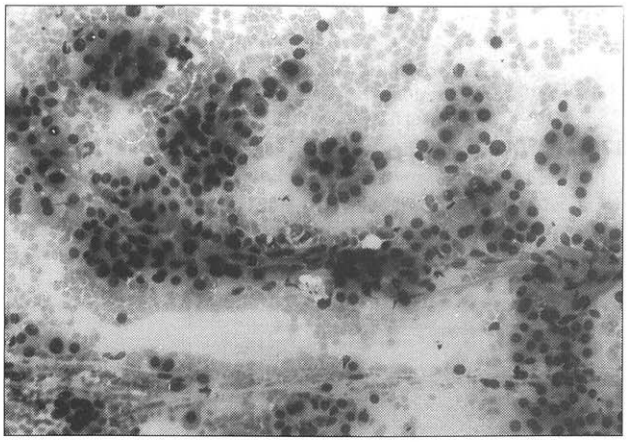

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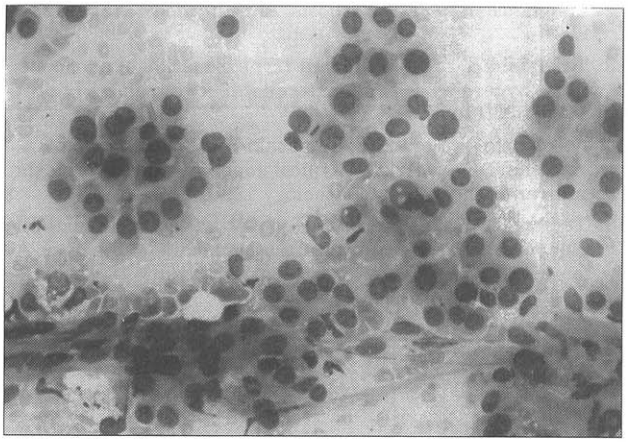

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nomatous hyperplasia is defined as a sizeable parenchymal nodules in cirrhosis (14) which represents a regenerative process with a limited growth potential (15) having regularly distrubuted portal tracts with complete and incomplete fibrous septa carrying biliary elements (14). In our case, no biliary elements were observed in the specimen.

Liver cell adenoma should be differantiated from low grade HCC and focal nodular hyperplasia (FNH). Features of liver cell adenoma that help to distinquish it from carcinoma are mitotic activity, cellular pleomorphism and vascular invasion. In this case there were neither mitoses, nor cellular atypia or vascular invasion. In FNH the bile ducts and radiating fibrosis containing many thick walled arteries and veins are seen (8).

There is no concensus about the transformation to a HCC in OC associated liver cell adenomas (16). Some experts believe that the malignant lesions arise de novo and they are not secondary to primary benign lesions (17). Foster et al. claim that alpha fetoprotein levels may be more helpful in diagnosis (18). Because the patient had minimal ascites, and although accepted as child A cirrhosis, the Gastroenterology commitee advised to follow up the patent for a while with alpha fetoprotein levels and ultrasonography. Provided that there is a growth in the lesion, they will operate him as soon as possible. He is under control for 3 years. While the underlying disease progressed in three years upgrading to child B, the lesion in quadrate lobe did not show any enlargement.

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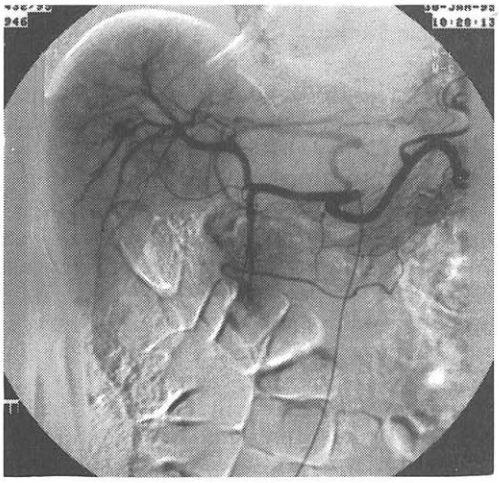

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