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Case Report

Hepatic adenoma-an unusual case report

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ABSTRACT

A 70-year-old female visited to tertiary care hospital with complains of abdominal pain on and off for 2 years. Pain gradually increased and was associated with vomiting. Patient is a known case of hypertension and diabetes mellitus. The patient`s complete blood count was normal with increased coagulation profile. Provisional clinical diagnosis was fibronodular variant of hepatocellular carcinoma. Computed tomography scan suggestive of fibronodular hyperplasia. Specimen received in pathology department, which on gross examination showed well circumscribed, well encapsulated tumour with variegated appearance. Histopathological diagnosis of Hepatic adenoma was made.

Keywords: Hepatic adenoma, Fibronodular hyperplasia, Hepatocellular carcinoma

INTRODUCTION

Hepatic adenomas (HA) are rare monoclonal benign tumours. Origin-epithelial cells (hepatocytes).[1] Incidence-2% of all liver neoplasms; with an incidence of 3/1000000 per year.[1] In spite of recent technological and radiological advances, these seemingly benign lesions often pose diagnostic challenges.[2]

CASE REPORT

A 70-year-old female visited to tertiary care hospital with complains of Abdominal pain on and off since 2 years. Pain gradually increased and was associated with vomiting. Patient is a known case of diabetes mellitus and hypertension. The patient`s complete blood count was normal with increased coagulation profile. Provisional clinical diagnosis was fibronodular variant of hepatocellular carcinoma (HCC).

Imaging

Computed tomography scan suggestive of fibronodular hyperplasia (FNH) (Figure 1).

Figure 1: Solid lesion in left lobe.

Gross examination

Gross examination showed well circumscribed, well encapsulated tumour, greyish white in colour with variegated appearance measuring 10.5×10.9×9 cm^3. Areas of haemorrhages and necrosis seen (Figure 2).

Figure 2: Gross image of liver cut section.

Microscopic examination

The microscopic exam shows lesions comprising of uniform population of hepatocytes arranged in 2 to 3 cell thick plates. Hepatocytes are having normal N:C ratio. Bile ducts absent. Reticulin stain positive (Figure 3). H and E section showed prominent and hyperchromatic nuclei in hepatocytes (Figure 4).

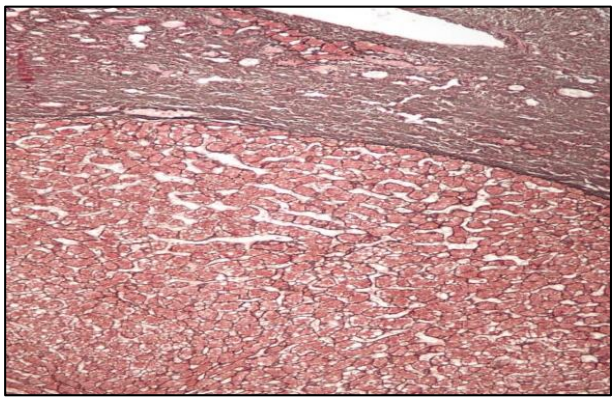

Figure 3: 40X reticulin stain positive.

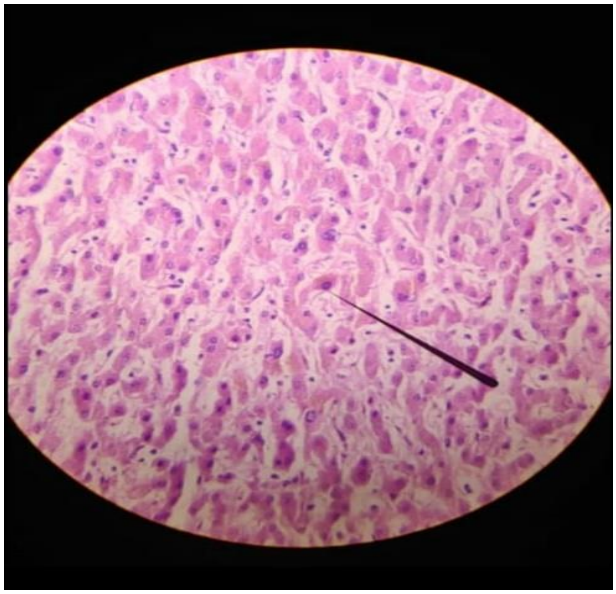

Figure 4: 10X (H and E) HA.

DISSCUSSION

HA are seen exclusively in young women taking oral contraceptive pills.

In recent times anabolic androgenic steroids (AAS) have been proved to be involved in the development of the HA.[3,4]

Female: male ratio is 11:1. It is associated with diabetes mellitus

Hepatic adenoma are not malignant tumours, but surgical intervention may be required if sudden massive bleeding or liver failure occurs; rupture of HA with haemoperitoneum can be a life-threatening complication.[5-8] One of the problems that HA present is differentiation between HA and hepatocellular carcinomas (HCC). In fact, radiological findings in patient with HA are often similar to those in patients with HCC.[9-11]

Table 1: Comparison of features of fibronodular hyperplasia, hepatic adenoma and hepatocellular carcinoma.

Features	Fibronodular hyperplasia	HA	Hepatocellular carcinoma
Clinical features			
Age/ gender	All ages, most common in young women	Nearly all women, in their third or fourth decade	More common in men
Steroid use	Occasional	Almost always	Generally absent
Background liver	Normal	Normal	Cirrhosis (>80%)
Alpha fetoprotein	Normal	Normal	Often elevated, can be normal in small tumors
Radiology	Homogeneous enhancement on CT and MRI. Normal or increased uptake on scintigraphy.	Heterogeneous mass on CT and MRI. Decreased uptake on scintigraphy. Hypervascular on angiography.	Arterial phase enhancement on CT with contrast. High vascularity on angiography.

Continued.

Features	Fibronodular hyperplasia	HA	Hepatocellular carcinoma
Morphologic features			
Capsule	Absent	May be present	May be present
Number	Can be multiple	Usually solitary	Solitary or multiple
Central scar	Present	Absent	Absent
Hemorrhage/ necrosis	Rare	Common	Common in large tumours
Parenchyma	Nodular	Homogenous	Nodular or homogenous
Bile	Absent	Can be present	Can be present
Bile ductular proliferation	Present	Absent	Absent
Interlobular bile ducts	Absent	Absent	Absent
Vessels	Aberrant arterioles with myointimal thickening present in fibrous stroma	Naked arterioles without bile ducts accompanied by scant stroma	Naked arterioles without bile ducts accompanied by scant stroma
Cell plates	1-3 cells thick	1-3 cells thick	Usually >3 cells thick
Kupffer cells	Present	Reduced / absent	Absent
Nuclear atypia	Absent	Absent/minimal	Often present
Nuclear to Cytoplasmic ratio	Normal	Normal	Increased
Nucleoli	Variable	Variable	Often prominent
Mitoses	Absent	Absent	Often present
Reticulin	Normal	Normal	Often decreased or absent
Immunohistochemistry			
CD34 in sinusoids	Can be positive	Often positive	Positive
Molecular techniques			
Clonality	Polyclonal	Monoclonal	Monoclonal

CONCLUSION

Although HA, FNH and HCC are common hepatic lesions with numerous similarities, clinicians should be aware of the diagnostic differences, preferred imaging modalities, and clinical management differences. Clinicians should have discussions with their patients with regard to the use of OCs, the necessity of close outpatient follow up, choice of imaging modalities, and the potential need for surgical consultation.

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REFERENCES

1. Barthelmes L, Tait IS. Liver cell adenoma and liver cell adenomatosis. HPB (Oxford). 2005;7:186-96.
2. Rooks JB, Ory HW, Ishak KG, Strauss LT, Greenspan JR, Hill AP et al. Epidemiology of hepatocellular adenoma the role of oral contraceptive use. JAMA. 1979;242:644-8.
3. Nakao A, Sakagami K, Nakata Y. Multiple hepatic adenomas caused by long-term administration of androgenic steroids for aplastic anemia in association with familial adenomatous polyposis. J Gastroenterol. 2000;35:557-62.
4. Degos F, Laraki R, Abd Alsamad I. Anatomo-clinical conference. PitieSalpetriere Hospital. Case N. 1994. Multiple hepatic tumors in a woman with idiopathic thrombopenic purpura. Ann Med Interne (Paris). 1994;145:20-4.
5. Minami Y, Kudo M, Kawasaki T. Intrahepatic huge hematoma due to rupture of small hepatocellular adenoma: a case report. Hepatol Res. 2002;23:145-51.
6. Gonza´lez A, Canga F, Ca´rdenas F. An unusual case of hepatic adenoma in a male. J Clin Gastroenterol. 1994;19:179-81.
7. Herna´ndez-Nieto L, Bruguera M, Bombi JA. Benign liver-cell adenoma associated with long-term administration of an androgenic-anabolic steroid (methandionone). Cancer. 1977;40:1761-4.
8. Boyd PR, Mark GJ. Multiple hepatic adenomas and a hepatocellular carcinoma in a man on oral methyltestosterone for 11 years. Cancer. 1977;40:1765-70.
9. Kammula US, Buell JF, Labow DM. Surgical management of benign tumors of the liver. Int J Gastrointest Cancer. 2001;30:141-6.
10. Al-Otaibi L, Whitman GJ, Chew FS. Hepatocellular adenoma. Am J Roentgenol. 1995;165:1426.
11. Grazioli L, Federle M, Brancatelli G. Hepatic adenomas: imaging and pathological findings. Radiographics 2001;21:877-92.

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