DIFFUSE TYPE OF HEPATOCELLULAR CARCINOMA

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Primary carcinoma of the liver or hepatocellular carcinoma has a universal significance. It is closely associated with cirrhosis. The entire liver is replaced by numerous small tumour nodules, often the size of an acinus, surrounded by a connective tissue network so that a histological examination is necessary to distinguish it from cirrhotic nodules.

CASE REPORT

In October 1981 a 40-year-old man presented with a history of jaundice and pain in upper right quadrant and epigastrium of three month's duration. Initiallyhe had mild anorexia which increased gradually. He felt increasingly fatigued and had weight loss. On examination he had tenderness over the epigastrium. The liver was enlarged and firm. The spleen was barely palpable. An upper gastrointestinal series failed to demonstrate any lesion. Blood chemistry showed SGPT 45 units, SGOT 120 units, alkaline phosphatase 30 K.A. units, total protein 6.2 gfdl, albumin 3.5 gJdl, globulin 2.7 g/dl and total bilirubin of 1.8 mg/dl. Hepatitis B surface antigen was positive. The patient underwent an exploratory laparatomy. The liver was covered with many small grey nodules, measuring from 0.3 to 0.5cm in diameter. One nodule was biopsied. The stomach, duodenum, small and large intestine and pancreas were of normal appearance. Lymph nodes in porta hepatie, mesenterie and para-aortie locations were not enlarged. Postoperatively, the general condition of the patient did not improve. He developed inereasingjaundice with a total bilirubin of 17mg/dl Aseites appeared and increased rapidly. Biopsy diagnosis of the liver nodule rendered an initial diagnosis of a malignant neoplasm consistent with HCC. The patient had a quick downhill course with increasing jaundice, aseites and development of esophageal varices. The liver enlarged and became more tender. Bleeding tendencies ensued and he died within one month of the hospitalization from liver failure. The normal lobular structure of the liver was replaced by pseudonodules surrounded by fibrous tissue bands in which bile duet proliferation was seen. The pseudonodu les consisted of large, polygonal neoplast ie cells with prominent vesicular nuclei. The nucleocytoplasmic ratio was increased. The cell boundaries were distinct and the cytoplasm was granular with a faint eosinophilic appearance. The nuclei were large and hyperchromatic. The nuclear membranes were irregularly thickened with clumped chromatin near the margin. Nucleoli were prominent (Figures 1 and 2).

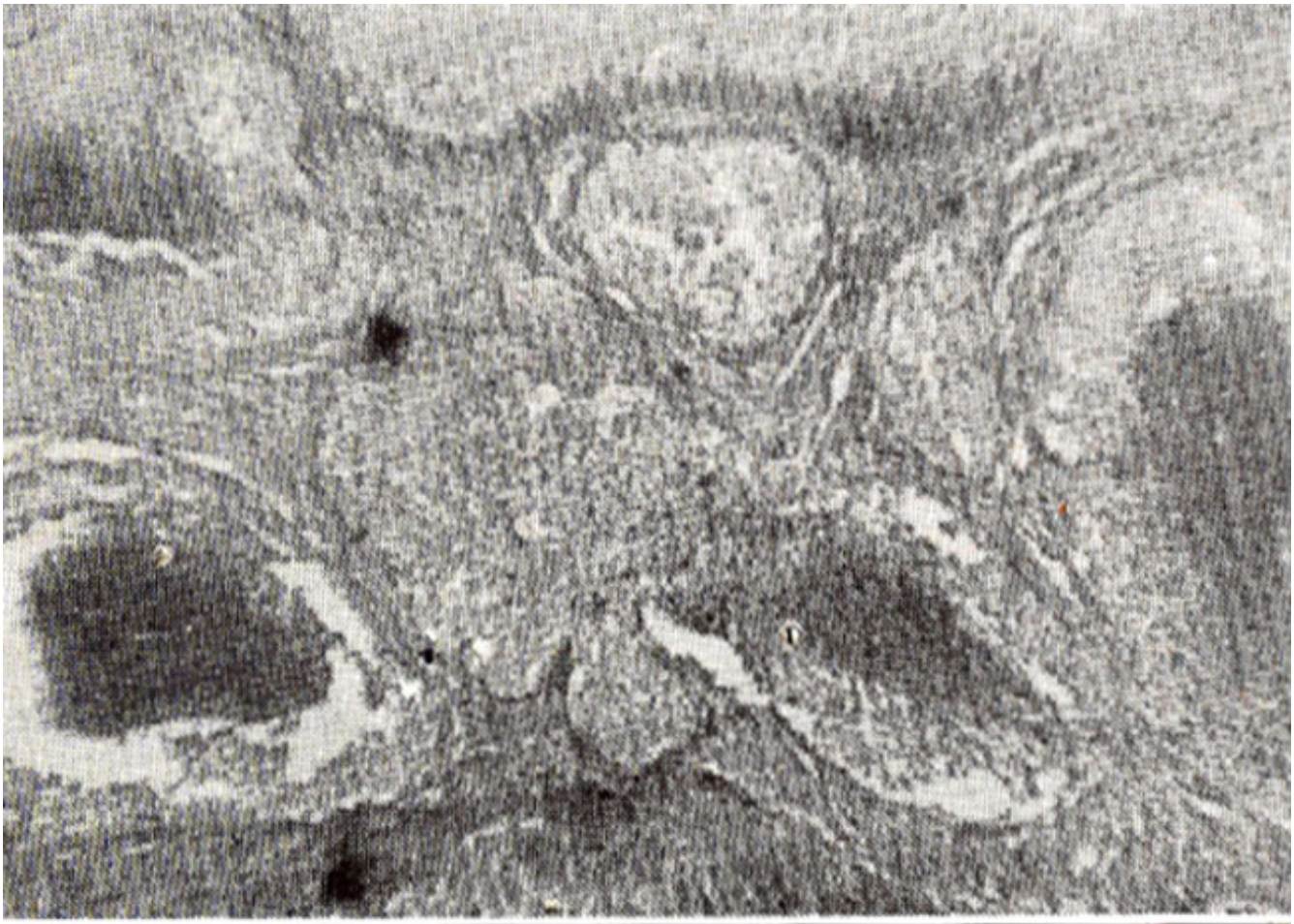

Figure 1.Diffuse type of Hepatacellular carcinoma, presenting like granulomas with central necrosis. Hepatic tissue is seen on the top. H & E x 52.5.

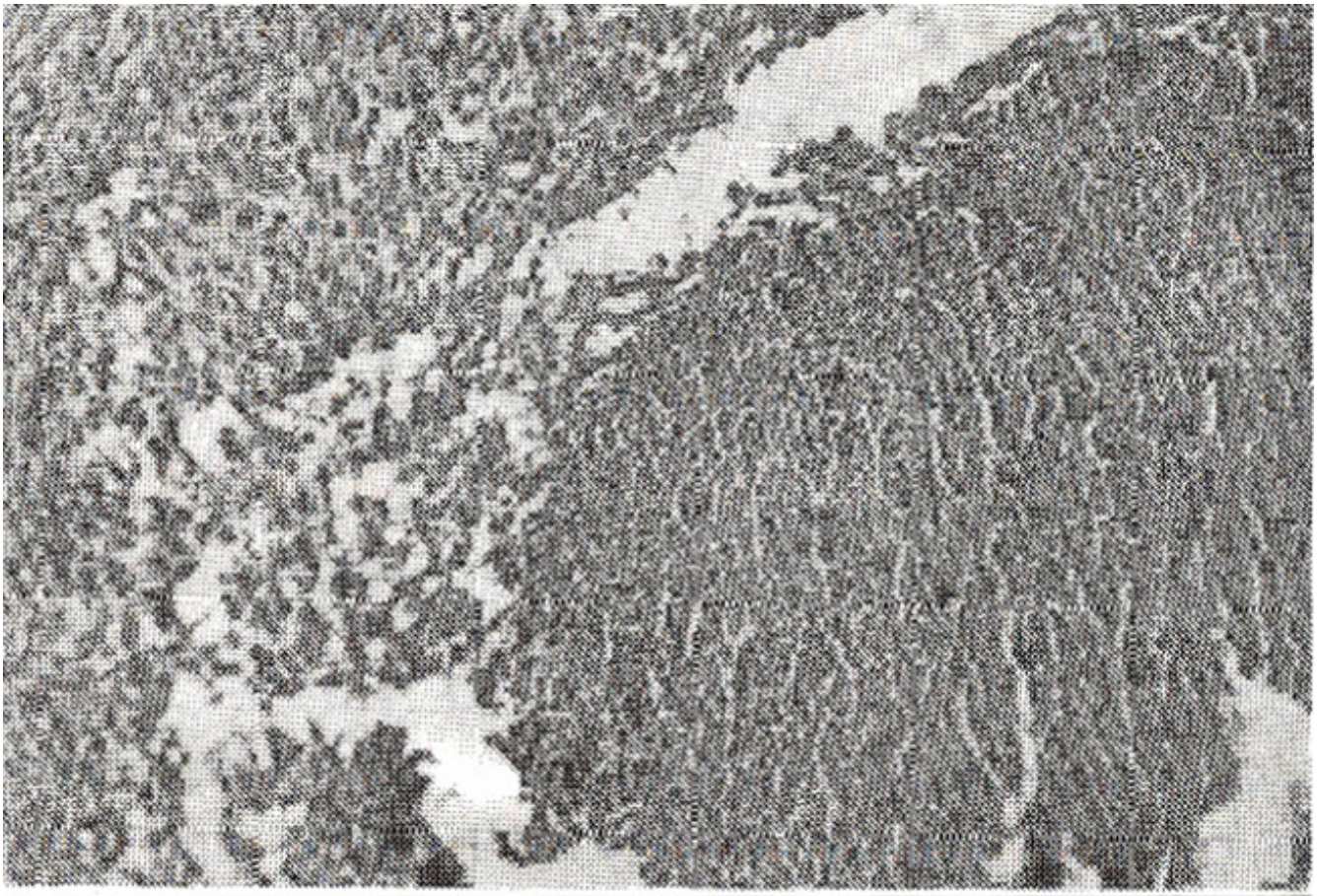

Figure 2. Hepatocellular carcinoma with central necrosis. H & E x 150.

Central necrosis with collections of neutrophilic leukocytes mimicking suppurative granulomas was present in some nodules. In some areasThe tumour cells were so anaplastic that classification as a hepatocellular ncoplasm was difficult or impossible (Figure 3).

Figure 3. Anaplastic tumour cells in sheets. H & E x 150.

The diagnosis of diffuse type of HCC was made.

DISCUSSION

The clinical presentation of HCC is quite variable and nonspecific[2-7,9,11,12]. The relationship of antecedent cirrhosis to primary carcinoma of the liver is an important finding[1]. Cirrhosis accompanies about 55% to 85% of liver cell carcinomas in various reported series[5,6,10,12] whereas only 30% of bkle duet carcinomas are said to have arisen in cirrhotic livers[10]. The classification of HCC into 'nodulart, "massive" and 'diffuse" types is based on the gross morphology of the neoplasm[11] . The diffuse type of HCC infiltrates the whole liver by numerous very small tumour nodules, often the size of an aelnus, surrounded by a connective tissue network, so that microscopic examination is required to distinguish it from cirrhotic nodules[8]. The diffuse type of hepatocellular carcinoma has the tendency of widespread intrahepatic metastasis with extreme infiltration of the hepatic vein tributaries[8,11]. This explains the rapid enlargement of the liver and early development of hepatic decompensation[8]. Our patient with the diagnosis of HCC of diffusety pe had a quick enlargement of hard nodular liver filling the abdomen, with massive third compartment expansion, increasing jaundice, portal hypertension, elevated alkaline phosphatase level initially but increasingly other liver dysfunctions also ensued. Bleeding tendencies manifested and he had a downhill course with hepatic coma terminally and died within 1 month of the diagnosis.

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