

Primary Liver Tumors in Turkey

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Özet: TÜRKİYE'DE PRİMER KARACİĞER TUMÖRLERİ

Primer karaciğer tümörü tanısı almış 54 hasta klinik karakteristikler ve risk faktörleri açısından değerlendirildi. Ağrılı hepatomegali en sık bulguydu. Yirmisekiz olguda HB_sAg (+) ti. Hepatitis seropozitifliği %83, Anti - HD pozitifliği %11'di. Onüç hastada alkol alımı öyküsü vardı. Bunlardan 6'sında HB_sAg (+), 6'sında izole anti HBC pozitifliği. Yirmidört olgu da da Anti HCV çalışıldı, (-) bulundu.

Kırkiki olguda (%72) alkalen fosfataz normalden yüksekti. Gamma-glutamyl transferase yalnızca 3 olguda (%5) normal sınırlardaydı. Alfa₁-fetoprotein 39 olguda (%72) yüksekti.

Histopatolojik araştırmada %91 hepato selüler karsinoma %9 kolonjioselüler karsinoma saptandı. Türkiye'de hepatoselüler karsinoma etyolojisinde başta gelen risk faktörünün hepatitis B virüs infeksiyonu olduğu, alkol ve diğer risk faktörlerinin daha az sayıda ki hastada geçerli olduğu kanısına varıldı.

Anahtar Kelimeler: Primer karaciğer tümörü, hepatoselüler karsinoma, kolonjioselüler karsinoma

PPrimary liver tumors are common all over the world and particularly in South Pacific, Africa and Asia, and show regional variations as to their epidemiological characteristics, etiology and risk factors (1,2).

Most of the primary liver tumors are of epithelial origin, and approximately 90% consist of he-

Summary: 54 patients diagnosed to have primary liver tumor are studied for clinical characteristics and risk factors. Painful hepatomegaly is the most frequent finding. In 28 cases HB_sAg was (+). Hepatitis B virus seropositivity was determined to be 83% and Anti-HD positivity 11%. There were 13 patients with a history of alcohol intake. Among these, 6 were (+) for HB_sAg, and 6 had isolated Anti-HBc positivity. In all of the 24 cases studied for Anti-HCV, it was (-).

Alkaline phosphatase level was higher than normal in 42 cases (%78). Gamma-glutamyltransferase was in normal limits only in 3 cases (5%). Alpha₁-fetoprotein was high in 39 cases (72%).

Histopathological survey has shown hepatocellular carcinoma in 91% and cholangiocellular carcinoma in 9%. It has been concluded that the leading risk factor in the etiology of hepatocellular carcinoma in Turkey is hepatitis B virus infection, and alcohol and other factors may have been active in less cases.

Key Words: Primary liver tumor, hepatocellular carcinoma, cholangiocellular carcinoma.

patocellular carcinoma (HCC) and only 7% cholangiocellular carcinoma (CC) (3). Other epithelial and mesodermal tumors are rather rare. Epidemiological, clinical and experimental findings are available which show relations between HCC and alcoholic liver disease and viral hepatitis (4,5).

Initially, it has been pointed out that HCC frequency is high in regions where hepatitis B virus (HBV) infections are common, which has

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Table 1: Serological findings

HBsAg(+)	52%	(28/54)
Anti-HBs(+)	20%	(11/54)
Anti-HBc (+)	11%	(6/54)
Isolated Anti-HBc (+)	83%	(45/54)
HBV seropositive	17%	(9/54)
HBV seronegative	11%	(3/28)
Anti-HD	0%	(0/24)
Anti-HCV		

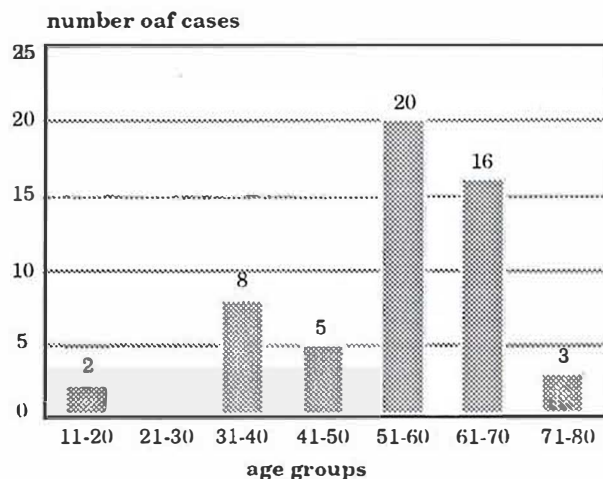
later been validated by virological studies and cell cultures (6,7). Findings showing that not only HBV but also hepatitis C virus (HCV) is closely related to HCC are increasing (8-10).

In this study, we aimed at examining the clinical characteristic of primary liver tumors and their relations with the possible etiological factors.

MATERIALS and METHODS

This study includes 54 patients diagnosed to have primary liver tumor in the Department of Internal Medicine, Cerrahpaşa Medical School in 1987-1992 period. Included in the study were 45 male and 9 female patients in an age range of 17 to 80 (average 54.31 ± 12.32) (Fig-1).

All cases have been diagnosed with histopathological examination, and ultrasonography (US) and computerized tomography (CT) have been used in localization of tumors. Liver biopsy has been performed with Menghini method in 50 cases and during laparoscopy in 4 cases.

**Figure 1:** Age distribution of the cases.

HBV markers, Anti-HD and Anti-HCV have been examined with EIA method by using Abbott kits and Alpha1-fetoprotein (AFP), alkaline phosphatase (AP) and Gamma-glutamyltransferase (GGT) levels have been determined with enzymatic method.

FINDINGS

The most frequent finding and complaint observed in the patients was hepatomegaly and pain (Fig-2). AP level was higher than normal in 42 cases (78%), normal in 12 cases (22%). GGT was higher than normal in 51 cases (91%) and normal only in 3 cases (5%). AFP was higher than normal in 39 cases (72%) and normal in 15 cases (28%).

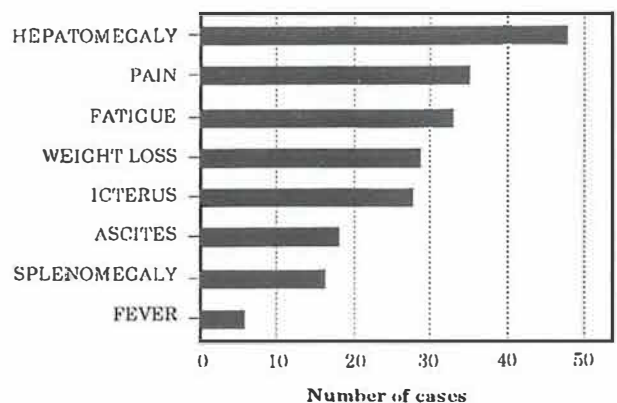
In 28 cases HBsAg was (+). HBV seropositivity was determined to be 83% and Anti-HD positivity 11%. In all of the 24 cases studied for Anti-HCV, it was (-) (Table 1).

In terms of localization of tumor, right lobe had a clear dominance, and was involved alone or with left lobe in 96% of the cases (Fig-3).

49 cases were HCC (91%) and 5 were CC (9%). Of HCC cases, 12(24%) were slightly differentiated HCC and 17(32%) were HCC on cirrhotic background (including 1 case of hemochromatosis) 13 patients had an alcohol history.

DISCUSSION

Symptomatology is rather variable in liver tumors. Tumor findings generally originate from a chronic liver disease with a long history. Hepato-

**Figure 2:** Common complaints and physical findings

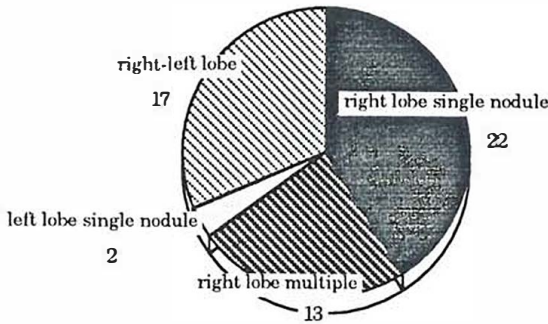


Figure 3: Tumor localization

megaly with or without pain is the most common physical finding, accompanied by icterus, ascites and splenomegaly (Fig-2).

Routine biochemical tests indicate some abnormalities including those caused by the underlying liver disease. AP being unexpectedly higher than the underlying liver disease points out to tumoral development. However, in our study, it was worth mentioning that AP was in normal limits in 22% of the cases. In fact, high AP level is not a finding directly associated to tumor. It may be said that high GGT level is a more constant and reliable finding in these patients (11). GGT was higher than normal in all, but three cases.

Although AFP may be high also in non-tumor liver diseases and non-liver tumors, it bears great importance in liver diseases as an indicator of tumor (12,13). It has been reported that frequent AFP determinations lead to early diagnosis of HCC (14). AFP was found above normal limits in 72% of our cases.

HBV seroprevalence was 83% in our study (Table 1). Considering that HBV seroprevalence is about 28% in our country, high percentage in HCC cases deserves attention and may be considered as a proof of the relation between HBV

and HCC (15). HBV seroprevalence in HCC shows great variations in different countries: 24% in USA, 37% in Japan, 59.5% in South Africa and 80% in Vietnam (16,17). In this respect, our country is included in the high risk group for HBV infections. Anti-HD positivity has been determined in only 3 of the HBsAg(+) cases, who suffered from liver cirrhosis at the same time. This finding is in compliance with the conclusion that there is no clear relation between delta virus and HCC as in HBV (18).

Anti-HCV positivity in HCC cases has been found to be 65% in Italy, 36,6% in South Africa and 66% in Japan (9,10,19). Anti-HCV has been found negative in all the 24 cases. New studies are needed in order to evaluate the relation between HCC and HCV in our country.

Alcohol use is accepted as an important risk factor in HCC. Only 1 of the HBV seronegative cases had a significant alcohol use. Of the other 12 patients with an alcohol history, HbsAg was (+) in 6 and isolated Anti-HBc was (+) in 6. In these cases, probably two etiological factors affect tumor formation through different mechanisms (20).

Histopathological diagnosis was HCC in 91% and CC in 9% of the cases. In 2 of CC cases, HBsAg has been found positive. However, there is no proven relation between HBV infection and CC (21). No other primary malignant tumors have been diagnosed in our cases.

Conclusively, although reliable findings indicating incidence of primary liver tumors in our country are not available, given that HBV infection percentage is high, this may be considered as an indirect indication of the high HCC incidence. Whatever the clinical and histopathological diagnosis is, regular monitoring of all patients infected with HBV, and serial US, CT and AFP determinations will wake it possible to early diagnose the probable liver tumors.

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