

**Original Article**

## **Clinical Profiles of Hepatocellular Carcinoma Patients: Experience of 50 cases in Dhaka City**

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### **Abstract**

**Background:** The clinical characteristics of hepatocellular carcinoma are varied from person to person. **Objectives:** The purpose of the present study was to see the clinical profiles of hepatocellular carcinoma patients. **Methodology:** This cross sectional study was carried out in the Department of Radiology and Imaging in Dhaka Medical College, Dhaka and Banghabandhu Sheikh Mujib Medical University, Dhaka from January 2007 to May 2008 for a period of around one and half year. All the patients presented with hepatocellular carcinoma at the age group of more than 20 years with both sexes were selected as study population. The patients were undergone CT-scan examination and the confirmation was performed by histopathological examination. All the clinical features of HCC patients were recorded. **Result:** A total number of 50 patients were recruited in this study after fulfilling the inclusion and exclusion criteria. Mean age of my study was 48.78 and SD  $\pm$  12.07. Hepatocellular carcinoma commonly presented with hepatomegaly (96%). Upper abdominal pain (60%), weight loss (60%), anorexia (44%), nausea/vomiting (44%), bruit (21%), jaundice (40%) and ascitis (32%) was also present. **Conclusion:** In conclusion the hepatocellular carcinoma is most commonly occurred in middle age group with a predominance of male. [Journal of Science Foundation 2016;14(2):36-39]

**Keywords:** Hepatocellular carcinoma; socio-demographic characteristics; CT-scan

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### **Introduction**

The principal reason for the high incidence of HCC in parts of Asia like Bangladesh is the frequency of chronic infection with Hepatitis B virus (HBV) and Hepatitis C virus (HCV) (Bannister 1995). These chronic infections frequently lead to cirrhosis (Alam 1996), which itself is an important risk factor for HCC. Studies in regions of Asia where HCC and HBV infection are prevalent, have shown that the incidence of this cancer is about 100 fold higher in individuals with evidence of HBV infection man in non-infected controls (Cosgrove 1994).

Cancers of the liver initially may escape clinical recognition because they often occur in patients with underlying cirrhosis (Adam et al., 1997). The most common presenting features are abdominal pain with detection of abdominal mass in the right upper quadrant (Vogl et al., 2003). There may be bruit over the liver. Ascities occurs in about 20 percent of cases. Jaundice is rare, unless there is significant deterioration of

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liver function or mechanical obstruction of the bile ducts. Serum elevation of alkaline phosphates and Alpha-fetoprotein (AFP) are common. Alpha-fetoprotein (AFP) levels greater than 500 mg/L are found in about 70 to 80 percent of patients with HCC (Zacherl et al., 2002). The presence of persistence of high levels of serum AFP over 500 to 1000 mg/L in an adult with liver disease of without an obvious gastrointestinal tumor strongly suggest HCC. Imaging procedures used to detect HCC include ultrasound, CT-scan, MRI, hepatic artery angiography and radionuclide scans (Yukisawa et al., 2006).

Ultrasound is frequently used to screen high risk populations and should be the first procedure if HCC is suspected. It is less costly and relatively sensitive and can detect most tumors greater than 3 cm (Yamamoto et al., 2002). Diversity of clinical presentation of the disease make it difficult achieve a diagnosis in early stage. In Bangladesh many of the patients present in late stage when no help is possible, leading to fatal outcome. Early detection of the disease may change the fatal outcome (Won et al., 2003). To diagnose this dreadful condition all essential investigations should be done with particular emphasis on radiological examinations. The present study was designed to see the clinical characteristics of hepatocellular carcinoma patients in a tertiary care hospital of Dhaka city.

## Methodology

This cross sectional study was carried out in the Department of Radiology and Imaging in Dhaka Medical College, Dhaka and Banghabandhu Sheikh Mujib Medical University, Dhaka from January 2007 to May 2008 for a period of around one and half year. All the patients presented with hepatocellular carcinoma at the age group of more than 20 years with both sexes were selected as study population. The patients were undergone CT-scan examination and the confirmation was performed by histopathological examination. During the study period, total 50 cases who had undergone CT examination of Hepatobiliary system were included in this study done in DMCH and BSMMU, Dhaka with close cooperation of Gastroenterology and hepatobiliary departments. Prior to commencement of the study the local approval body kindly approved the thesis protocol. During study period of 17<sup>th</sup> months, a total of 54 patients were selected on basis of clinical features and laboratory findings. Two were sensitive to contrast material; one had bleeding disorder and one lost histopathology report. So the study was carried out on 50 patients.

They were sent to radiology department for CT-scan of HBS and histopathology was done to compare CT finding. Before study, researchers explained the aims and methods of study. It was assured that all information would be kept secret and it would helpful for the physicians concerned to manage the problem of the patients. Permissions were taken from the department concerned and informed written consent of the patients. Diagnostic criteria of HCC by CT-scan were single or multiple solid mass which is iso- or hypodense to liver Parenchyma, dominant mass with satellite nodule, mosaic pattern multiple nodular area with differing attenuation in CECT (Contrast Enhanced Computed Tomography), single or solid mass with central necrosis or mass of hypo hyper or mixed density on CECT were excluded from this study<sup>8-9</sup>. Statistical analyses of the results were obtained by using window based computer software devised with Statistical Packages for Social Sciences (SPSS version 16.0).

## Result

A total number of 50 patients were recruited in this study after fulfilling the inclusion and exclusion criteria. Most of the hepatocellular carcinoma (44%) was in the 41 to 50 years age group followed by 51 to 60 years which was 9(18.0%) cases. The youngest patient in this study was 22 years and the eldest 75 years. Mean age of my study was 48.78 with a SD of  $\pm 12.07$  (Table 1).

**Table 1: Age group distribution of HCC patients (n=50)**

Age group	Frequency	Percentage
21 to 30 Years	3	6.0
31 to 40 Years	7	14.0
41 to 50 Years	22	44.0
51 to 60 Years	9	18.0
61 to 70 Years	6	12.0
71 to 80 Years	3	6.0
<b>Total</b>	<b>50</b>	<b>100.0</b>

Hepatocellular carcinoma commonly presented with hepatomegaly (96%). Upper abdominal pain (60%), weight loss (60%), anorexia (44%), nausea/vomiting (44%), bruit (21%), jaundice (40%) and ascitis (32%) was also present (table 2).

**Table 2: Clinical presentation of patients with HCC patients (n=50)**

Presentation	Frequency	Percentage
Upper abdominal pain	30	60
Weight loss	30	60
Hepatomegaly	48	96
Anorexia	22	44
Nausea/vomiting	22	44
Bruit	10	20
Jaundice	20	40
Ascitis	16	32

Within 25 cases of HCC as diagnosed by CT scan 13(52%) had solitary lesion 7(28%) had multiple lesions and remaining 5(20%) had diffuse lesions (Table 3).

**Table 3: Pattern of Tumours of the HCC Patients (n=25)**

Lesion	Frequency	Percentage
Solitary	13	52
Multinodular	7	28
Diffuse	5	20
<b>Total</b>	<b>25</b>	<b>100.0</b>

Table 4 shows tumour size of 8 cm or more was highest with 10 in numbers.

**Table 4: Distribution of Size of Tumors (n=25)**

Size	Frequency
0-1 cm	0
1 – 2 cm	1
2 – 3 cm	2
3 – 4 cm	3
4 – 8 cm	7
8 cm or more	10
Unknown	2
<b>Total</b>	<b>25</b>

## Discussion

This study as carried out to determine the accuracy of CT scan examination for the evaluation of Hepatocellular carcinoma (HCC) and correlated with histopathological examinations. Subjects of this study were taken from DMCH and BSMMU, Dhaka during the study period from January 2007 to May 2008. Total 50 cases were studied who had undergone CT examinations of hepatobiliary system. The final diagnosis of HCC was made by histopathological examination in 38 cases.

In this study common age group affected by HCC was seen between 41 to 50 years and male female ratio seen was 6.6:1. In Britain, hepatocellular carcinoma (HCC) was found over 50 years of age (Patten et al., 1993). In Japan age distribution of HCC was found from 5 years to 100 years with a mean age of 55.5 years (Junquera et al., 1995), In Bangladesh, HCC was found to be common between 41 to 50 years of age group (Alam, 1989). In this study, age of the youngest patient with HCC was 22 years and that of the eldest one was 75 years. The diseases were found to be common between 41 to 50 years of age group which correlated with the above study done in Bangladesh.

Regarding presentation Hepatomegaly was present in 96% of cases, Upper abdominal pain and weight loss was present in 60% of cases. Other manifestations were anorexia, nausea/vomiting, bruit, jaundice and ascitis. Hepatomegaly was present in 96.4% cases, upper abdominal pain and weight loss in 57.5% cases. So this study regarding clinical presentation is also similar to that done in another study (Graevfore 1994).

## Conclusion

In conclusion hepatocellular carcinoma commonly presented with hepatomegaly. Upper abdominal pain, weight loss, anorexia, nausea/vomiting, bruit, jaundice and ascitis was also present.

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