

Clinical Profiles of Hepatocellular Carcinoma Patients: Experience of 86 Cases in Multi-Center Study

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ABSTRACT

Background: Hepatocellular carcinoma (HCC) is the third most prevalent cause of cancer-related death worldwide, and its frequency is rising. With a continuously rising incidence worldwide, HCC is turning into a significant health burden. The clinical features associated with hepatocellular carcinoma exhibit variability among individuals.

Objective: The aim of this study is to assess the clinical profiles of hepatocellular carcinoma patients.

Methods: The cross-sectional observational study was conducted in the Department of Gastroenterology, Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka, Bangladesh and Sylhet Women's Medical College, Sylhet, Bangladesh from January 2022 to December 2022. In this study, out of 86 patients, solitary lesion was found in 47 patients and among them the size of tumor was also seen. The questionnaire was pretested, corrected and finalized. Data were collected by face-to-face interview and analyzed by appropriate computer based programmed software Statistical Package for the Social Sciences (SPSS), version 24.

Results: In this study, most of the hepatocellular carcinoma 37 (43.0%) was in the 41 to 50 years age group followed by 51 to 60 years which was 17 (19.8%) cases. The youngest patient in this study was 23 years and the eldest 77 years. Mean±SD of age was 45.76 ±13.04. Most of the patients 56 (65.10%) were male and 30 (34.90%) patients were female. Hepatocellular carcinoma commonly presented with hepatomegaly 80 (93.0%). Upper abdominal pain 56 (65.1%), weight loss 58 (67.4%), anorexia 47 (54.7%), nausea/vomiting 49 (56.9%), bruit 14 (16.3%), jaundice 43 (50.0%) and ascitis 17 (19.8%) were also present. Within 86 cases of HCC as diagnosed by CT scan 47 (54.7%) had solitary lesions, 28 (32.6%) had multiple lesions and remaining 11 (12.7%) had diffuse lesions. Tumour size of 4-8 cm was highest with 24(51.06%) in numbers.

Conclusion: In summary, the majority of cases of hepatocellular carcinoma occur in middle age, with a male predominance.

Key words: Hepatocellular Carcinoma, Tertiary Care Hospital, CT-scan.

I. INTRODUCTION:

The prevalence of chronic infection with the hepatitis B and hepatitis c viruses (HBV and HCV), respectively, is the main cause of the high incidence of hepatocellular carcinoma (HCC) in several parts of Asia, such as Bangladesh [1]. According to Alam (1995), cirrhosis is often the result of these persistent infections and is a significant risk factor for HCC [2]. Research conducted in Asian locations where HBV infection and HCC are common has revealed that the incidence of this malignancy is approximately 100 times greater in those who have evidence of HBV infection than in non-infected controls [3]. Because they frequently originate in people with underlying cirrhosis, liver cancers may first go undiagnosed [4]. According to Vogl et al. (2003), the most typical presenting symptoms are abdominal pain accompanied by an abdominal mass in the right upper quadrant [5].

There might be liver-related bruit. About 20% of cases result in ascities. Unless there is a severe decline in liver function or a mechanical blockage of the bile ducts, jaundice is uncommon.

Elevations of Alpha-fetoprotein (AFP) and alkaline phosphates in serum are frequently observed. About 70 to 80 percent of patients with HCC had alpha-fetoprotein (AFP) values higher than 500 mg/L [6]. When an adult with liver illness does not have a visible gastrointestinal tumor but yet has persistently high serum AFP levels over 500–1000 mg/L, this strongly suggests hepatocellular carcinoma. Hepatic artery angiography, MRI, CT, ultrasound, and radionuclide scans are among the imaging techniques used to identify HCC [7].

When screening high-risk patients, ultrasound is often the first procedure to do if HCC is suspected. It can identify the majority of cancers larger than 3 cm and is reasonably sensitive and less expensive [8]. Early diagnosis is challenging due to the disease's diverse clinical presentations. Many patients in Bangladesh present at a late stage, when there is no chance of recovery and a potentially deadly consequence. Early diagnosis could prevent the disease's deadly course [9]. All necessary investigations should be completed in order to diagnose this terrible illness, with radiological examinations receiving special attention. The purpose of the current study was to examine the clinical features of patients with hepatocellular carcinoma in a tertiary care hospital in Dhaka city.

II. METHODOLOGY:

The cross-sectional observational study was conducted in the Department of Gastroenterology, Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka, Bangladesh and Sylhet Women's Medical College, Sylhet, Bangladesh from January 2022 to December 2022. A total of 86 patients were included in the study. All the patients presented with hepatocellular carcinoma at the age group of more than 20 years with both sexes were selected as study population. In this study, out of 86 patients, solitary lesion was found in 47 population and size of tumor was seen among these 47 patients. The patients were undergone CT-scan examination, and the confirmation was performed by histopathological examination. Patients who matched the inclusion and exclusion criteria were approached for participation in the study. Patients who were not willing to give consent were excluded. Purposive sampling was done according to the availability of the patients who fulfilled the selection criteria. Face to face interview was done to collect data with a semi-structured questionnaire. After collection, the data were checked and cleaned, followed by editing, compiling, coding, and categorizing according to the objectives and variables to detect errors and to maintain consistency, relevancy and quality control. Statistical evaluation of the results used to be obtained via the use of a window-based computer software program devised with Statistical Packages for Social Sciences (SPSS-24).

III. RESULT:

Table I: Distribution of the patients according to age and sex (n = 86)

Age group	Frequency	%
21 - 30 years	5	5.8
31 - 40 years	14	16.3
41 - 50 years	37	43.0
51 - 60 years	17	19.8
61 - 70 years	8	9.3
71 - 80 years	5	5.8
Total	86	100.0
Mean±SD	45.76 ±13.04	
Sex Distribution		
Male	56	65.10
Female	30	34.90

Table I shows that, most of the hepatocellular carcinoma 37 (43.0%) was in the 41 to 50 years age group followed by 51 to 60 years which was 17 (19.8%) cases. The youngest patient in this study was 23 years and the eldest 77 years. Mean±SD of age was 45.76 ±13.04. Most of the patients 56 (65.10%) were male and 30 (34.90%) patients were female.

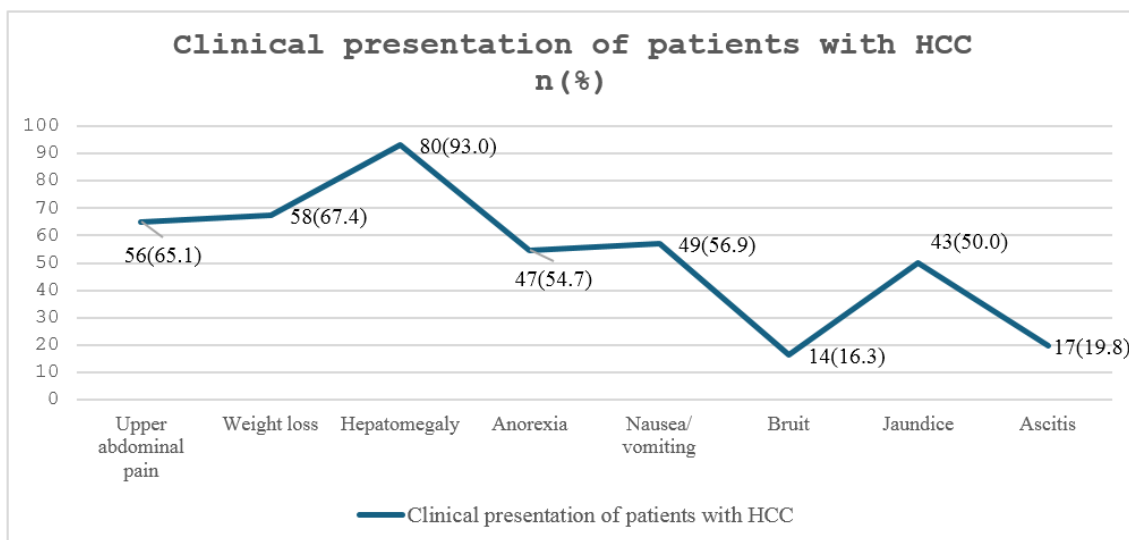


Figure I: Distribution of the patients according to clinical presentation of patients with HCC (n = 86)

Table II shows that, hepatocellular carcinoma commonly presented with hepatomegaly 80 (93.0%). Upper abdominal pain 56 (65.1%), weight loss 58 (67.4%), anorexia 47 (54.7%), nausea/vomiting 49 (56.9%), bruit 14 (16.3%), jaundice 43 (50.0%) and ascitis 17 (19.8%) was also present

Table II: Distribution of the patients according to pattern of Tumours of the HCC Patients (n = 86)

Pattern of Tumours	Frequency	%
Solitary lesion	47	54.7
Multiple lesion	28	32.6
Diffuse lesion	11	12.7
Total	86	100.0

Table II shows that, within 86 cases of HCC as diagnosed by CT scan 47(54.7%) had solitary lesions, 28 (32.6%) had multiple lesions and remaining 11 (12.7%) had diffuse lesions

Table III: Distribution of the patients according to Size of Tumours (n = 47)

Size of Tumours	Frequency	%
0 - 1 cm	0	0
1 - 2 cm	1	2.12
2 - 3 cm	2	4.25
3 - 4 cm	6	12.76
4 - 8 cm	24	51.06
8 cm or more	11	23.40
Unknown	3	6.38
Total	47	100.0

Table III shows that, tumour size of 4-8 cm was highest with 24(51.06%) in numbers.

IV. DISCUSSION:

According to predictions, liver cancer will rank fourth globally in terms of cancer-related deaths in 2018 and as the sixth most often diagnosed cancer worldwide. Approximately 75% to 85% of primary hepatic malignancies are HCCs, making it the most prevalent primary malignant liver tumor [10]. Throughout their lives, about one-third of those with cirrhosis will acquire HCC [11, 12].

The cross-sectional observational study was conducted in the Department of Gastroenterology, BSMMU, Dhaka and Sylhet Women's Medical College, Sylhet, from October 2022 to September 2023. A total of 86 patients were included in the study. 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 underwent a CT-scan examination, and the confirmation was performed by histopathological examination.

In this study, most of the hepatocellular carcinoma 37 (43.0%) was in the 41 to 50 years age group followed by 51 to 60 years which was 17 (19.8%) cases. Mean±SD of age was 45.76 ±13.04. Most of the patients 56 (65.10%) were male and 30 (34.90%) patients were female. In Britain, hepatocellular carcinoma (HCC) was found over 50 years of age [13]. In Japan age distribution of HCC was found from 5 years to 100 years with a mean age of 55.5 years [14], In Bangladesh, HCC was found to be common between 41 to 50 years of age group [2]. In this study, the youngest patient in this study was 23 years and the eldest 77 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. In another study, 61.6% of patients belonged to the age group of 60–80 years and 32.1% belonged to the age group of 40–60 years. Male-to-female ratio was 10.3:1. The age-specific incidence is different in different parts of the world [15, 16]. The incidence of HCC is higher in men and in those over 40 years old [17]. The incidence of HCC increases progressively with advancing age in all populations, reaching a peak at 70 years [18].

Hepatocellular carcinoma is commonly presented with hepatomegaly 80 (93.0%). Upper abdominal pain 56 (65.1%), weight loss 58 (67.4%), anorexia 47 (54.7%), nausea/vomiting 49 (56.9%), bruit 14 (16.3%), jaundice 43 (50.0%) and ascitis 17 (19.8%) were also present. Within 86 cases of HCC as diagnosed by CT scan 47 (54.7%) had solitary lesions, 28 (32.6%) had multiple lesions and remaining 11 (12.7%) had diffuse lesions. Tumour size of 8 cm or more was highest with 33 (38.4%) in numbers. So, this study regarding clinical presentation is also similar to that done in another study [19].

V. CONCLUSION:

In conclusion, hepatocellular carcinoma commonly presented with hepatomegaly, Upper abdominal pain, weight loss, anorexia, nausea/vomiting, bruit, jaundice and ascitis was also present. Despite the advances in diagnostic methods and surveillance, most cases of HCC tend to be diagnosed at advanced stages.

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