

Original Article

Socio-demographic Characteristics of Hepato-cellular Carcinoma Patients attended at Tertiary Care Hospital in Dhaka City

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Abstract

Background: The hepatocellular carcinoma is one of the most common tumor. **Objectives:** The purpose of the present study was to see the socio-economic characteristics 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. **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. Out of 50 patients 43(86%) were male and 7(14%) female. Cultivator was 42% followed by service holder. Medical personnel were 2%. Illiterate group was the top of the list with 40% and most educated was 4%. **Conclusion:** In conclusion the hepatocellular carcinoma is most commonly occurred in middle age group with a predominance of male. [*Journal of Current and Advance Medical Research 2016;3(2):39-42*]

Keywords: Hepatocellular carcinoma; socio-demographic characteristics; CT-scan**Correspondence:** Dr. Md. Akter Hossain, Assistant Professor, Department of Radiology & Imaging, National Institute of Ophthalmology & Hospital, Dhaka, Bangladesh; Email: akterdr@gmail.com; Cell no.: +8801819290848**Funding Agency:** none.**Conflict of interest:** No conflict of interest.**Cite this article as:** Hossain MA, Huq MS, Ahmad A. Socio-demographic Characteristics of Hepato-cellular Carcinoma Patients attended at Tertiary Care Hospital in Dhaka City. *Journal of Current and Advance Medical Research* 2016;3(2):39-42**Contributions to authors:** MAH & MSH have contributed in protocol preparation up to surgical procedures as well as the report writing; furthermore, AA has written the manuscript and have revised the manuscript.**Introduction**

Primary hepatocellular carcinoma (HCC) is one of the most common tumours in the world¹. It is especially prevalent in the regions of the Asia and Sahran Africa, where the annual incidence is up to 500 cases per 100,000 population². From clinical practice, it is quite evident that the incidence of HCC is also significantly high in Bangladesh. In the United States and Western Europe, it is much less common, accounting for only 1 to 2% of malignant tumors at autopsy³. HCC is four times more common in men than in women and usually arises

in a cirrhotic liver⁴. The peak incidence occurs in the 5th or 6th decades of life in western countries but 1 to 2 decades earlier in regions of Asia and Africa⁵.

Any agent or factor that contributes to chronic low grade liver cell damage makes hepatocytes more susceptible to genetic alteration⁶. Thus chronic liver disease of any type is a risk factor and predisposes to the development of liver cell carcinoma. This includes alcoholic liver disease, α_1 (Alpha-1) antitrypsin deficiency, haemochromatosis and Tyrosinemia⁷. In Africa and southern China aflatoxin is an important public health hazard.

Cancers of the liver initially may escape clinical recognition because these often occur in patients with underlying cirrhosis⁸. The most common presenting features are abdominal pain with detection of abdominal mass in the right upper quadrant. There may be bruit over the liver. Ascities occurs in about 20% of cases³. Jaundice is rare, unless there is significant deterioration of liver function or mechanical obstruction of the bile ducts. Serum elevation of alkaline phosphates and Alphafetoprotein (AFP) are common⁶. Diversity of clinical presentation of the disease make it difficult to 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. The purpose of the present study was to see the socio-economic characteristics 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. 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 17th 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 be 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^{8,9}. Statistical analyses of the results were obtained by using window based computer software devised with Statistical Packages for Social Sciences (SPSS).

Results

A total number of 50 patients were recruited in this study after fulfilling the inclusion and exclusion criteria.

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

Age group (years)	Frequency	Percentage
21-30	3	6.0
31-40	7	14.0
41-50	22	44.0
51-60	9	18.0
61-70	6	12.0
71-80	3	6.0
Total	50	100.0

The table shows most of the hepatocellular carcinoma (44%) was in the (41-50) years age group. 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 ± 12.07 (Table 1).

Table 2: Sex group distribution of HCC patients (n=50)

Sex	Frequency	Percentage
Male	43	86.0
Female	7	14.0
Total	50	100.0

Out of 50 patients 43(86%) were male and 7(14%) female with a male and female ratio of 6.6:1 (Table 2).

Table 3: Distribution of Occupation group of HCC patients (n=50)

Occupation	Frequency	Percentage
Cultivation	21	42.0
Service holder	14	28.0
House wife	4	8.0
Student	4	8.0
Business and others	6	12.0
Medical personnel	1	2.0
Total	50	100.0

Cultivator was 42% followed by service holder (28.0%). Medical personnel were 2% (Table 3). Low: They are not able to buy any medicine from outside. Below average: They can buy some medicine from outside. Average: They are able to

buy all medicines from outside. Good: They are able to buy all medicines from outside (Table 4).

Table 4: Distribution of socioeconomic status of patients with HCC patients (n=50)

Socioeconomic condition	Frequency	Percentage
Low	25	50.0
Below average	15	30.0
Average	8	16.0
Good	2	4.0
Total	50	100.0

In this study illiterate group is in the top of the list with 40% and most educated is 4% (Table 5).

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.

Table 5: Distribution of educational status of patients with HCC patients (n=50)

Educational status	Frequency	Percentage
Illiterate	20	40.0
Pre-school	10	20.0
Primary	8	16.0
S.S.C.	6	12.0
H.S.C.	4	8.0
Graduate	2	4.0
Total	50	100.0

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 age⁹. In Japan age distribution of HCC was found from 5 years to 100 years with a mean age of 55.5 years¹⁰. In Bangladesh, HCC was found to be common between 41 to 50 years of age group¹¹. 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. HCC, in Japan, predominates in male over female by a ratio of 5:1 which is similar to the present study result¹². In Philippine the male and female ratio of HCC was found 5.4:1 which is consistent with the present study result¹³.

In this study male and female ratio of HCC is seen to be 6.6:1. This ratio might vary because females are more reluctant to seek medical advice¹⁴. This study shows that there is some variation in occurrence of HCC on different socioeconomic conditions. Here the occurrence is more on low and below average incoming group of people and less common in higher socioeconomic group. The percentages are 50% low, 30% below average 16% average and 4% good¹⁵. In a study it has been found that the incidence of HCC was more common in low socioeconomic group of people¹⁶. Regarding educational status, illiterate to primary educational groups comprise 76.0% and test 24.0% is from SSC level to above. It is about 4.0% at graduate level.

Conclusion

In conclusion the hepatocellular carcinoma is most commonly occurred in middle age group. Male predominance is reported. Majority are illiterate. Cultivator is the main occupation. A large scale multicentre study should be carried out to see the socio-economic characteristics of Bangladeshi population.

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