Pattern and Presentation of Hepatocellular Carcinoma

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ABSTRACT

Objective: To describe clinical pattern and presentation of Hepatocellular Carcinoma.

Methods: This cross sectional study was conducted in Medical unit I,II,III ,Peoples University Of Medical and Health Sciences Nawabshah from January 2018 to June 2019. All consecutive patients suspected of having Hepatocellular carcinoma, were included in this study.Diagnosis of hepatocellular carcinoma was established by clinical,biochemical,multiphasic CT scan abdomen.Patients were staged according Barcelona Clinic Liver Cancer (BCLC) staging system.We have excluded cases having hepatic metastasis from other sites to liver,e.g GIT tumors,carcinoma of lung,carcinoma of breast and tumors of genitourinary system.All demographic and clinical data was collected on a proforma.Data was statistically analyzed.

Results: There were 100 patients with Hepatocellular carcinoma including 62 males and 38 females.Most of patients were above 45 years of age.The right hypochondrial pain was major symptom in 61 patients,mass in right hypochondrial region 48 patients,abdominal distention 41 patients,jaundice 14 patients,weight loss 11 patients and altered consciousness 04 patients.Patients ECOG performance status from grade 0 to IV was 02, 14,30,43,11 respectively.According to BCLC staging system 03 patients have stage 0, 09 patients have stage A, 22 patients have stage B, 53 patients have stage C and 13 patients have stage D.Hepatitis B and C was positive in 33 and 54 patients respectively. While 13 patients were suffering from both hepatitis B & C.

Conclusion:

Early detection of hepatocellular carcinoma and appropiate management can significantly improve survival and quality of life.

Key Words: Hepatocellular carcinoma, Liver Cirrhosis, Hepatitis B, Hepatitis C.

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INTRODUCTION:

Hepatocellular carcinoma is the 5th most common neoplasm and the ranking second most frequent cause of tumor related mortality worldwide, and accounts 854000 new cases and 810000 deaths per year.[1]Hepatocellular carcinoma incidence increases with advancing age in all populations, has peak at 70 years.[2] Unfortunately there is lack of population based studies in Pakistan, from which a true incidence and prevalence rate of Hepatocellular carcinoma can be calculated. The Karachi Cancer Registry (KCR) was the first population based cancer registry, established in 1995 by Government of Sindh in technical collaboration with the unit of Descriptive Epidemiology Internal Agency for Research on Cancer(IARC) of the World Health Organization(WHO).[3]The incidence and prevalence of various malignancies have been estimated in few

cities of Pakistan through KCR programme. New cancer cases registered in KCR from Karachi ,district south during year 1995 to 1997 were 4268., the age standardized rate for Hepatocellular carcinoma were found 5.7/100000 in males and 3.7/100000 in females.[3]KCR registered patients who were residents of Hyderabad were 4.4/100000 in males and 1.2/100000 in females.[4] Another hospital based case series study conducted at Shaukut Khanum Memorial Cancer Hospital and Research centre Lahore, showed that hepatobillary cancers are the most common malignancy in adult males and represent 10.7% of all cancers.[5] Hepatocellular carcinoma is associated with known underlying risk factors in 90% cases include viral hepatitis B & C, liver cirrhosis, alcohol intake and aflatoxin exposure.[1] Liver cirrhosis is one of major risk factor for developing hepatocellular carcinoma and about one third of liver cirrhotic patients will develop Hepatocellular carcinoma during their lifetime.[6] In liver cirrhotic patients long term surveillance studies have found that approximately 1-8% of patients develop Hepatocellular carcinoma per year.[7] Unfortunately most of available studies have more emphasized the epidemiological aspect of Hepatocellular carcinoma. Majority of patients in our country presented in locally advanced stage of Hepatocellular carcinoma and are not candidates for any curative treatment options. This study aimed to more focus on clinical presentation to diagnose and treat for early stage Hepatocellular carcinoma as improve patient's quality of life as well as survival by using radical treatment options.

METHODS:

This cross sectional study was conducted in Medical unit I,II,III ,Peoples University Of Medical and Health Sciences Nawabshah from January 2018 to June 2019.All consecutive patients suspected of having Hepatocellular carcinoma, were included in this study. Diagnosis of Hepatocellular carcinoma was established by clinical, biochemical, multiphase CT scan abdomen. Patients were staged according Barcelona Clinic Liver Cancer (BCLC) staging system. We have excluded cases having hepatic metastasis from other sites to liver,e.g GIT tumors, carcinoma of lung, carcinoma of breast and tumors of genitourinary system.All patients were underwent a detailed medical history and clinical physical examination. Eastern cooperative oncology group(ECOG) was assessed.Biochemical and radiological staging and prognostic workup included complete blood picture, liver function tests, serum albumin, serum Prothrombin time, serum alpha fetoprotein, viral profile for hepatitis B & C and multiphasic CT scan abdomen was performed. Patients were staged according to Barcelona Clinic Liver Cancer (BCLC) staging system. All demographic and clinical data was collected on a proforma. Data was statistically analyzed.

RESULTS:

There were 100 patients with Hepatocellular carcinoma including 62 males and 38 females presented in Figure I.Most of patients were above 46 years of age presented in Figure II. The right hypochondrial pain was major symptom in 61 patients, mass in right hypochondrial region 48 patients, abdominal distention 41 patients, jaundice 14 patients, weight loss 11 patients and altered consciousness 04 patients presented in Figure II .Patients

ECOG performance status from grade 0 to IV was 02,14,30,43,11 respectively presented in Figure IV. According to BCLC staging system 03 patients have stage 0, 09 patients have stage A, 22 patients have stage B, 53 patients have stage C and 13 patients have stage D presented in Figure V .Hepatitis B and C was positive in 33 and 54 patients respectively. While 13 patients were suffering from both hepatitis B & C presented in Figure VI.

Figure.I Gender Distribution (n=100)

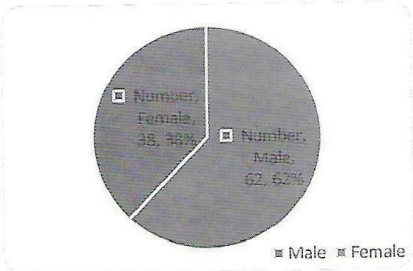


Figure. II. Age Distribution (n=100)

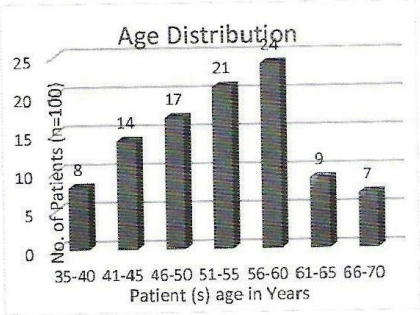


Figure.III. Clinical presentation (n=100)

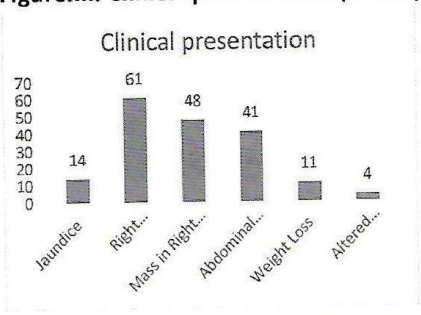


Figure.IV. Performance status (n=100)

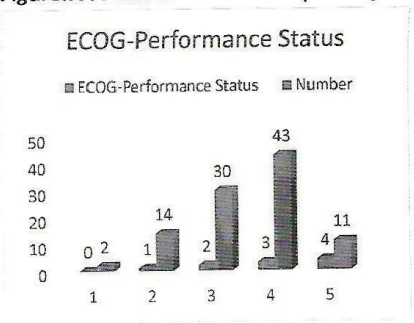


Figure.V. Stage of disease(n=100)

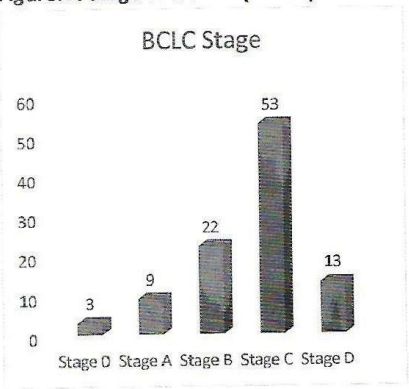
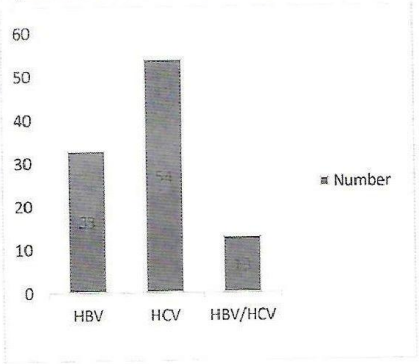


Figure.VI. Viral status(n=100)



DISCUSSION:

Hepatocellular carcinoma incidence and mortality is increasing in the developing world due to oncological care in developing countries is highly compromised. Hepatocellular carcinoma is a challenging dilemma for oncologists in developing world,where patients are usually diagnosed in locally advanced stage.In developing world cancer patients face sinister limitations in cancer diagnosis and treatment, which have an adverse impact on patients health delayed diagnosis and ultimately yields poor outcome.[8] Hepatocellular carcinoma has 10% 05 years survival rate.Hepatocellular carcinoma survival is worst and mortality is roughly equivalent to incidence rates in developing countries.[9]According to 2015 statistics of International Agency for Research on cancer(IARC) the mortality to incidence ratio for hepatocellular carcinoma is 0.95 and geographical patterns of incidence to mortality are nearly uniform.[10] Hepatocellular carcinoma patients 25-70% have advanced stage at time of presentation.[11,12,13,14,15]Majority of patients in Pakistan present in advanced stage and unaware of their disease and its outcomes.Based on results of clinical trials median overall survival of hepatocellular carcinoma BCLC stage B,C and D is 20,10 ,03 months respectively.[16,17,18] Sorafenib which is tryosine kinase inhibitor provides minimal benefit and median survival does not extends beyond 02-03 months.[19] Other treatment options like transarterial arterial chemoembolization (TACE), stereotactic body radiation (SBRT), transarteial radioembolization (TARE), radiofrequency ablation (FRA), percutaneous ethanol injection (PEI) facilities are lacking in public sector hospitals and are restricted to few cancer institutes in Pakistan.Multidisiplinary team input still remains lacking in Pakistan and majority of patients are being treated by physicians alone.[21]

In our this study patients clinical presentation were similar to patients suffering from liver cirrhosis.Chronic hepatititis C &B were major risk factors for hepatocellular carcinoma.Majority of patients presentated in advanced stage with poor oncological performance status,due to lack of local guidelines for sreening and diagnosis of hepatocellular carcinoma.At present there is also scarcity of national data on hepatocellular carcinoma presentated in advanced stage.An institute based case series study conducted by A.Abbasi et al at JPMC karachi on clinico pathological features of hepatocellular carcinoma also reported that majority of patients were presented with right hypochondrial pain and in advanced stage.[20]Results of this institute based study were similar to our this study.

The main limitation of this study is single hospital based with limitations of diagnostic as well as therapeutic treatment facilities.

CONCLUSION:

Majority of patients with hepatocellular carcinoma were male presented with advanced stage with poor performance status. Patients suffering from chronic hepatitis B & C should undergo vigorous hepatocellular carcinoma screening to detect early stage hepatocellular carcinoma.

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