



Clinical Characteristics of Patients With Hepatocellular Carcinoma In Suburban Rawalpindi

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Hepatocellular carcinoma (HCC) is the most common primary liver tumor and represents the third-leading cause of cancer-related death in the world. The incidence of HCC continues to increase worldwide, with a unique geographic, age, and sex distribution. The present study is aimed to determine prevalence of hepatocellular carcinoma (HCC) in sub-urban Rawalpindi Pakistan and to evaluate the role of its associated risk factors. Blood sample collected and different biochemical blood test performed in this study. The study was conducted from August 2015 to July 2016. Blood samples collected and processed after serum separation. Current result showed that people those with the age between 30-60 years are potentially at higher risk of getting HCC females are higher risk of getting HCC than the males ($P < 0$). Clinico-pathological result showed that including higher value in HCC patients than the normal NON-HCC people.

Keywords: Clinico-pathological, Hepatocellular carcinoma, Rawalpindi

Introduction

Liver malignancy, transcendently hepatocellular carcinoma (HCC), is the succeeding and 6th mainly deadly disease within both male as well as females, individually, and happened in around 750,000 new patients and brought on 700,000 demise in 2008 [1]. Further 80% of the belongings happen in creating nations in the Asia-Pacific areas and sub-Saharan Africa, and China alone records for over half [2]. Geographic disseminations of sex, and period of HCC are mainly an aftereffect of the specific examples of these danger variables, with the dominant part of belongings the screech of hepatitis B and C virus contamination and intoxicating liver infection [3]. The quantity of instances of patients of HCC changes unmistakably in distinctive locales. The greatest rate of HCC was found in Asia-pacific range ($>20/100,000$), while low recurrence was begin in Northern Europe and Northern America ($<5/100,000$) [4]. Lamentably, there is no accessibility of information populace based study which a genuine commonness and frequency rate of HCC could be learned. Numerous study which was behavior clinic based, and this information is comprised of case arrangement with little specimen sizes or they had a very select populace. Be that as it may, there has been a couple of tumor registries framework present in Pakistan. The Karachi Cancer Registry (KCR) was the first populace based malignancy registry, set up in 1995,

by the Sindh Government, in specialized relationship with the Unit of Descriptive Epidemiology, International Agency for Research on Cancer (IARC) of the World Health Organization (WHO) [5].

Materials And Methods

This study includes both negative and positive control bunches alongside the test gatherings. Sound people incorporate the adverse control gatherings while patients with any liver illness involve the constructive control amass however the exploratory gathering constitutes the patients with analyzed HCC. Blood samples (2-3 ml) were collected from diagnosed patients of HCC along with the negative control that include healthy subjects.

The aspirated blood was shifted to silica gel tube for biochemical analysis. Blood were centrifuged for the separation of the sera. The serum was stored at $-80\text{ }^{\circ}\text{C}$ for further analysis. Biochemical profiling was performed. Blood would be continued for the liver capacity test, lipid profile and hematological files. All tests were performed utilizing industrially accessible reagent units.

Liver compounds; Alanine Amino Transferase (ALT), Aspartate Amino Transferase (AST) and Bilirubin were

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assessed through obvious light spectrophotometer (UV 4000 Spectrophotometer, O.R.I. Germany), absorbance at 340 nm. Serum albumin and also included in the present study serum cholesterol, triglycerides, high thickness lipids (HDL) and low thickness lipids (LDL).

After performing all the biochemical assays, statistical analysis was performed. Univariate analysis was

applied on variables including ALT, AST, TBL, TCOL, HDL, LDL. The HCC positive and HCC negative control groups were compared for each variables using t test. A p-value of < 0.05 was considered to indicate statistical significance for t test.

Table. 1: Clinical features of HCC patients

PARAMET RS	HCC (Mean±S.D)	NON-HCC P (Mean±S.D) VALUE
AGE (YEAR)	46.35±8.08	45.13±8.86 0.999931
ALT (IU/L)	129.76±34.71	45.17±8.79*4.328 76E-11
AST (IU/L)	83.23±136	26.23±6.62 1.47461E-16
TBL(mg/dl)	2.93±75	1.11±0.46 1.19E-09

LDL(mg/dl)	172.82±14.23	78.29±14.24* 3.28E-19
HDL(mg/dl)	81.17±13.54	43.88±2.64 1.51E-12
TCOL(mg/dl)	329.35±48.05	133.58±11.38* 4.34E-17
TG(mg/dl)	197±.07	132.47±29.45* 3.28E-08
Albumin (g/dl)	6.90±0.61	4.28±0.40* 8.63E-16

*Showed the significance difference

cholesterol, TAG, LDL and HDL that expand the contamination determination[12 13]. **Table. 1**

Results And Discussion

In the present study the patients infected with HCC showed the significant elevation in ALT, AST, and TBL and TCOL, serum total protein and albumin, these are the suitable factors which cause liver damage. The role of liver enzyme is important in present study, Mean ALT is significantly ($p < 0.05$) higher in patients as compared to normal controls and mean AST values were non significantly ($p > 0.05$). Elevated aminotransferases levels act as indicators of liver cell injury [5 6] and are usually predominant in liver cirrhosis with increased ALT levels [7]. Being the biomarker for inflammation of liver, serum ALT level is a widely used clinical practice [8]. Total bilirubin is TBL/mg HCC and NON- HCC Mean±S.D (2.93±75 versus 1.11±0.46). Present results are accordance with previous studies which showed the elevated liver enzyme [9]. High bilirubin level is normally connected with liver metastases and liver tumor association prompting hepatocellular carcinoma and liver cirrhosis by dynamic or non-dynamic HCV or HBV [10]. Bilirubin has been reported as marker of liver injury and to determine the proper dose of interferon in patients with different genotypes [11].

Significant increase in LDL, HDL, TCOL and TG was observed in patients for HCC. It has been understood that disease with HCV infection prompts hepatic harm, which thus identifies with changes in adjustments of the lipid digestion system. As obvious from present study a reliable solid affiliation exists between intense HCV disease and low levels of aggregate

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