



ANXIETY AND DEPRESSION PREVALENCE IN CHRONIC HEPATITIS C PATIENTS

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ABSTRACT... Introduction: Chronic Hepatitis C (CHC) is a leading health issue for Pakistan. Other than the late complications of chronic liver disease, such as cirrhosis and hepatocellular carcinoma, a high frequency of anxiety and mood-disorder related symptoms has been described. **Objective:** To evaluate the morbidity Chronic Hepatitis C causes in the form of anxiety and depression in the affected individuals. **Study Design:** Observational, cross-sectional study. **Setting:** Medical Outdoor in Ibn-e-Sina Hospital, Multan. **Period:** 1st October 2014 to 1st March 2015. **Methodology:** In patients presenting with Chronic Hepatitis C and evaluated them for the presence of anxiety and depression using Hospital Anxiety and Depression Score. We found high prevalence of anxiety (36.6%) and Depression (29.2%) in the study population. The study population consisted of 281 patients with CHC (175 males---62.3% and 106 females----37.7 %, mean age 39.3 ± 11.3). **Results:** Out of 281 patients, 94 (33.4%) were in the age group from 16-30 years, 104 (37%) in the age group 31-45 years whereas 68 (24.2%) were from the age group 40-60 years. Patients with were 103 (36.6%), while 178 patients were normal. Patients with depression were 82 (29.2%). **Conclusion:** Chronic Hepatitis C is associated with high percentage of anxiety and depression in the affected individuals and adds to the morbidity of the disease.

Key words: Chronic Hepatitis, cirrhosis, hepatocellular carcinoma.

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INTRODUCTION

Chronic hepatitis C (CHC) is a leading cause of health in Pakistan. Other than the late complications of chronic liver disease, such as cirrhosis and hepatocellular carcinoma, elevated frequency of anxiety - and mood-disorder related symptoms has been described.^{1,2} Chronic hepatitis C (CHC) patients perform relatively poorly as compared to controls, in health-related quality of life indicators and this trend has been shown to improve when Sustained Viral Response (SVR) is achieved with interferon therapy.³ The colossal prevalence of anxiety- and mood-disorder related symptoms has been described to be associated with a) the patient's awareness of the diagnosis and prognosis⁴, b) side effects induced by treatment with interferon (IFN)-alpha⁵ and c) past or present substance abuse. However, Forton et al have hypothesized the straight outcome of HCV on brain neurocognitive function.⁶ Evaluation for psychiatric symptoms in hepatitis is significant

since they have poor effect upon the course of disease. Psychiatric problems in the patients with hepatitis may be responsible for functional impairment, reduced treatment compliance, and reduced quality of life.^{7,8} Successful medical treatment, consequently, requires detection and management of depression, anxiety and other psychiatric issues before and during the treatment.⁹

Prospective studies designed to study the real effect of anxiety- and mood-disorders through clinical psychiatric tools, the prevalence rates of 25–28% for depressive disorders, and rates of 18-28% for anxiety disorders. Individuals with non-alcoholic fatty liver disease (NAFLD) and HCV had a higher prevalence of depression than HBV patients and general population. In addition, treatment of Chronic Hepatitis C which until recent past consisted of Interferon and Ribavirin has been observed to induce anxiety

and depression.^{10,11,12,13}

Though frequency of depression has been studied in Pakistani population, the prevalence of anxiety specifically in patients with Chronic Hepatitis C by using the validated clinical tools has not been studied in Pakistani population yet. To study the effects of only Hepatitis C Virus (HCV) on the anxiety- and mood- disorder prevalence spectrum, it is important to rule out all other medical confounding factors.

METHODS

This cross-sectional and observational study was carried out at the Medical Outdoor in Ibn-e-Sina Hospital, Multan and included 281 patients of chronic hepatitis C from 1st October 2014 to 1st March 2015, (175 males---62.3% and 106 females - 37.7 %, mean age 39.3±11.3). The exclusion criteria included previous treatment with IFN-alpha, co-infection with HCV and HBV, HCV and HIV co-infection, cocaine, heroin and/or alcohol addiction, diagnosis of any malignancy, advanced chronic diseases like COPD, CKD and/or CCF and decompensated cirrhosis. All the patients participating in the study gave their informed consent. The diagnosis of Chronic Hepatitis C was made by the presence of PCR for HCV RNA and the evidence of liver damage by biochemical (ALT) or radiological (liver USG) or tissue elastography (Fibroscan) who have not undergone HCV therapy (interferon or Sofosbuvir). Depression and Anxiety were assessed by Hospital Anxiety and Depression Scale (HADS) questionnaire. This questionnaire included 14 questions. Each question had 4 choices (0 – 3). Maximum score of depression in this questionnaire was 21. We labelled patients as having Anxiety and Depression who had HADS-A and HADS-D score 8 or more and those having score 7 or less as Normal. As HADS-A and HADS-D score of 08 has been found to be an optimal balance between the sensitivity and the specificity of the HADS score.¹⁴ The study employed a translated and validated Urdu version of this scale.¹⁵ The patients, who were not able to fill in the questionnaire themselves, were helped by a team of young doctors who were trained to

administer questionnaire and assess the answers. The data was analyzed through SPSS-20. Data was expressed in the form of frequencies and percentages.

RESULTS

Age range in Years	Numbers	Percentage
16-30	94	33.45
31-45	104	37.01
46-60	68	24.19
> 60	15	5.33

Table-I. Age of the patients (n=281)

Age range in Years	No.	Male	Female
Normal HADS score	178	115	63
Patients with Anxiety - number	103	63	40
Patients with Anxiety----%age	36.6	36.0	37.7

Table-II. Prevalence of Anxiety in Chronic Hepatitis C patients (n= 281)

Age range in Years	No.	Male	Female
Normal HADS score	199	126	73
Patients with depression- number	82	48	33
Patients with depression--- %age	29.2	28,0	31.1

Table-III. Prevalence of Depression in Chronic Hepatitis C patients (n= 281)

DISCUSSION

The present study found high prevalence rate of 27% of anxiety and depression. It is also comparable with the reported rates of 25–28% found using psychiatric diagnostic tools (5–7) and less than the rate of 37.8% found in the Pakistani study using the HADS.¹⁵

The frequency of anxiety is 37.7% higher than the international literature where the rates of 18–28% have been reported.⁵⁻⁷ Ours was first study in Pakistan where the clinical anxiety was measured along with depression using HADS. Both Anxiety and Depression were slightly more frequent in female patients as was noted by Carta et al⁹ and Golden et al.¹⁰ Our patients were markedly early in the staging of the disease (patients with

decompensated cirrhosis being excluded), it is more likely that presence of Hepatitis C Virus is itself the explanation for the high frequency of the anxiety and depression.

The drawback of our study is that it did not compare the prevalence of anxiety and depression in patients with Chronic Hepatitis C with the prevalence of anxiety and depression in the normal matching population as it would give more insight into the psychological burden, the disease is causing in the population.

CONCLUSION

Chronic Hepatitis C is related to high percentage of anxiety and depression in the affected individuals and adds to the morbidity of the disease.



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AUTHORSHIP AND CONTRIBUTION DECLARATION

Sr. #	Author-s Full Name	Contribution to the paper	Author=s Signature
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2	Dr. Umar Farooq Qureshi	Data analysis	
3	Dr. M. Nadeem	Data interpretation	