

Prevalence of psychiatric disorders in patients with hepatitis C infection

Dr.(Maj.) Rakesh Saxena¹, Dr Mahendra Singh²

¹Assistant Professor, Department of psychiatry, Hind Institute of Medical Sciences, Barabanki, Safedabad, U.P., India

²Professor, Department of psychiatry, TS Misra medical College Lucknow, U.P., India

Corresponding author:

Dr.(Maj.) Rakesh Saxena

Assistant Professor, Department of psychiatry, Hind Institute of Medical Sciences, Barabanki, Safedabad, U.P., India

ABSTRACT:

Background: HCV is often accompanied by significant medical and psychiatric co-morbidities that can complicate the course of illness. Some of the more common co-occurring disorders that have received empirical attention include depression, substance use disorders (SUDs), and chronic pain. **Aim of the study:** To study prevalence of psychiatric disorders in patients with hepatitis C infection. **Materials and methods:** The present study was conducted in the Department of Psychiatry in the Medical Institute. For the study, we selected patients whose blood work was positive for antibody to HCV and have the presence of HCV RNA confirmed by the use of PCR. A total of 50 patients were selected for the study. For the evaluation of psychiatric disorders in the patients, the patients were given a questionnaire to complete. **Results:** A total of 50 subjects were included in the study. 35 subjects were male and 15 subjects were female. Mean age of the patients was 46.23 years. We observed that 9 patients had bipolar disorder, 15 patients had schizophrenic psychosis, heavy alcohol use was seen in 21 patients, PTSD was seen in 14 patients, substance use was observed in 19 patients and depression was seen in 33 patients. **Conclusion:** Within the limitations of the present study, it can be concluded that patients with hepatitis C infection have high prevalence of psychiatric disorders, the most common psychiatric disorders in hepatitis C patients are depression and heavy alcohol use. The quality of life of the patients are significantly affected by the psychiatric disorders.

Keywords: hepatitis, HCV, psychiatric disorder, substance use

Introduction:

Severe psychiatric disorders such as schizophrenia, bipolar, schizoaffective, and depressive disorders are important contributors to the global burden of disease and they are among the common leading causes of the global burden of morbidity and early deaths. ^{1,2} Severe mental disorders including schizophrenia and psychosis affect 1 to 2% of the general adult population. ³ HCV is often accompanied by significant medical and psychiatric co-morbidities that can complicate the course of illness. Some of the more common co-occurring disorders that have received empirical attention include depression, substance use disorders (SUDs), and chronic pain. The prevalence of depression-related diagnoses has been reported to be higher among individuals with HCV as compared with the general population. It is estimated that 20% to 40% of people with HCV experience clinically significant symptoms of depression. ⁴ Interferon-alpha (IFN) has been the most common treatment for HCV (prior to the advent of IFN-free treatments) and there are numerous neuropsychiatric consequences of IFN treatment, including depression. Depressive symptoms that precede the start of antiviral therapy can be significantly aggravated by treatment with IFN. ⁵ Also, IFN-induced depressive symptoms, if undiagnosed and left untreated, can have a considerable adverse impact on adherence to and completion of antiviral treatment. ⁶ Hence, the present study was conducted to study prevalence of psychiatric disorders in patients with hepatitis C infection.

Materials and methods:

The present study was conducted in the Department of Psychiatry. The ethical clearance for the study was obtained from the ethical board of the institute prior to commencement of the study. For the study, we selected patients whose blood work was positive for antibody to HCV and have the presence of HCV RNA confirmed by the use of PCR. The patients were referred to the liver clinic for evaluation. An informed written consent was obtained from all the participants after verbally explaining them the procedure of study. No age limit was defined for selection of the subjects. The patients with ongoing health issues and systemic illness such as leukemia, tuberculosis, cerebral palsy were excluded from the study. A total of 50 patients were selected for the study. For the evaluation of psychiatric disorders in the patients, the patients were given a questionnaire to complete. The questionnaire was designed as such to detect the current and past history of psychiatric illness and whether they were treated for the illness in the past. The questionnaire also included current and past history of alcohol abuse and substance use. After completion of the questionnaires, they were evaluated on the basis of the score. The data was stored for further statistical analysis.

The statistical analysis of the data was done using SPSS version 11.0 for windows. Chi-square and Student's t-test were used for checking the significance of the data. A p-value of 0.05 and lesser was defined to be statistically significant.

Results:

Table 1 shows the demographic details of the participating subjects. A total of 50 subjects were included in the study. 35 subjects were male and 15 subjects were female. Mean age of the patients was 46.23 years. Table 2 shows the number of patients with psychiatric/ substance use disorder. We observed that 9 patients had bipolar disorder, 15 patients had schizophrenic psychosis, heavy alcohol use was seen in 21 patients, PTSD was seen in 14 patients, substance use was observed in 19 patients and depression was seen in 33 patients. On comparing the results, we observed statistically non-significant results.

Table 1: Demographic details of the participating subjects

Characteristics	Number of patients
Total number of subjects	50
Number of male subjects	35
Number of female subjects	15
Mean age of the patients (years)	46.32

Table 2: Number of patients with psychiatric/ substance use disorder

Psychiatric/ substance use disorder	Number of patients	p-value
Bipolar disease	9	0.09
Schizophrenic psychosis	15	
Heavy alcohol use	21	
PTSD	14	
Substance use (if any)	19	
Depression	33	

Discussion:

In the present study, we assessed the prevalence of psychiatric disorders in Hepatitis C patients. We observed that psychiatric disorders are highly common in these patients. The most common disorder in these patients is depression followed by heavy alcohol use. The results were compared with previous studies. Durotoy IA et al established the sero-prevalence of hepatitis B and C among the mentally ill individuals (MII) attending Psychiatric clinic of the University of Ilorin Teaching Hospital (UIH), Nigeria since it has not been documented. A total of 350 MII were recruited. HBsAg testing was by immunoassay test strip (Grand Medical Diagnostic R USA) while hepatitis C was tested by commercially

prepared kits from ACON, R USA. Healthy adults who presented as donors in the Blood Bank of the hospital were used as controls. A total of 700 participants including 350 MII and 350 blood donors (BDs) were recruited for the study. The mean ages of MII and control participants were 36.5 ± 12.3 and 31.4 ± 8.3 , respectively. The sero-prevalence of hepatitis B and C among patients with mental illness was 10.0 and 12.6%, respectively, as compared to 10.9% and 1.1% of the blood donors. There was a significant difference in the prevalence of HCV among mentally ill when compared with the blood donors. They concluded that mentally ill patients attending UITH were significantly infected with hepatitis C virus. There is need for interventional measures to reduce the prevalence of hepatitis C among the mentally ill population such as health education and early screening of mentally ill in our setting.⁷ Gunewardene R et al determined the prevalence of HCV in two inpatient psychiatric populations of seriously mentally ill patients and the relationship to risk factor screening. Two inpatient units were chosen in similar socio-economic areas. Persons admitted to these wards over the course of the study were invited to participate and provided with pre-test counselling. Where informed consent was obtained, individuals were included in the study. Around 18% of psychiatric inpatients admitted to risk factors for HCV. The prevalence of HCV with screening of all consenting patients in unit A was 3.2%. With selective screening in unit B, 41.7% of those with identified risk factors tested positive. These results compare to the Australian community rate of approximately 1.1%. They concluded that elevated rates of HCV in mentally ill populations elsewhere in the world, and provide support for selective screening.⁸

Schaefer, M et al investigated and compared the results of treating the chronic hepatitis C (HCV) infection of different groups of psychiatric-risk patients and controls with pegylated interferon alpha (pegIFN- α) plus ribavirin. Seventy patients were prospectively screened for psychiatric disorders. Seventeen patients without psychiatric diseases or drug addiction (controls), 22 patients with psychiatric disorders, 18 patients who had received methadone substitution treatment and 13 patients who were former drug users were treated with pegIFN- α plus ribavirin. Sustained virological response (SVR), adherence, and psychiatric side effects in the groups were compared. An SVR was found in 58.6% of all patients: 58.8% of the controls, 50% of psychiatric patients, 72.2% of methadone patients, and 53.8% of former drug users. Methadone-substituted patients and former drug users had significantly higher dropout rates. Scores for neither depressive nor psychotic symptoms differed significantly between groups during treatment. However, the controls had lower pretreatment scores, followed by a significant higher increase to maximum scores. A stepwise logistic regression model showed that only genotype, not group (control, psychiatric, methadone, or former drug abuse), type of psychiatric diagnosis (affective disorder, personality disorder, or schizophrenic disorder), depression scores before and during treatment, change in depression score, antidepressive treatment, sex, or liver enzymes before treatment, was associated with SVR. They concluded that in an interdisciplinary treatment setting psychiatric diseases and/or drug addiction did not negatively influence psychiatric tolerability of and antiviral response rate to HCV treatment with pegIFN- α and ribavirin.⁹ AlHuthail YR et al determined if psychiatric disturbances occur in Saudi patients infected with hepatitis C and whether these symptoms extend to those infected with hepatitis B. Data were collected from hepatitis C and hepatitis B patients using the general health questionnaire (GHQ- 28) and The Short Form Health Survey (SF- 36) questionnaires. Tinnitus patients served as control subjects. The Chi- square test was used to examine the relationship between categorical variables. Hepatitis C patients were twice as likely to be labeled as a psychiatric case compared with hepatitis B patients. Age and gender were not predictive factors though there was a non- significant tendency toward a higher prevalence of psychiatric cases among females. Hepatitis C patients also scored lower than hepatitis B patients in 3 domains of the SF- 36 questionnaire, indicating a greater reduction in quality of life (QoL). They concluded that increased incidence of psychiatric symptoms in Saudi Arabian hepatitis C patients compared to hepatitis B patients and controls. This highlights the importance of collaboration between hepatologists and psychiatrists in order to improve the QoL in this patient group.¹⁰

Conclusion:

Within the limitations of the present study, it can be concluded that patients with hepatitis C infection have high prevalence of psychiatric disorders, the most common psychiatric disorders in hepatitis C

patients are depression and heavy alcohol use. The quality of life of the patients are significantly affected by the psychiatric disorders.

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