

## Incidence of Depression in cases of Chronic Hepatitis C without Interferon therapy

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### ABSTRACT

**Aim:** To assess the prevalence of depression in untreated patients of Hepatitis C.

**Place and duration of study:** The study was conducted in the Department of Medicine, Sheikh Zayed Medical College & Hospital, Rahim Yar Khan, from February 04, 2013 to October 16, 2013.

**Methods:** The sample consisted of 200 patients visiting Outpatient Department (Male 84, Female 116), pre-diagnosed HCV positive, not getting any treatment for Hepatitis C. They were interviewed and results were analyzed from the entries in a Performa and Hamilton Rating Scale for Depression.

**Results:** Mean age of our patients was 37.82 years. Depression was found in 38% of the patients, 12% patients had mild depression, 20% patients had moderate depression, 4% patients had severe depression and 2% patients had very severe depression.

**Conclusion:** Our study corroborates presence of depression among patients who did not take any treatment for Hepatitis C, showing that depression is also caused by disease process itself.

**Keywords:** Depression C, Interferon therapy, untreated

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### INTRODUCTION

Hepatitis C, the most common blood borne viral infection today is a major cause of chronic liver disease and affects an estimated 180 million people worldwide.<sup>1</sup> The prevalence of hepatitis C virus (HCV) infection in Pakistan has been estimated as high as 35% in some areas<sup>2,3</sup>. Physicians are finding increasing correlation with HCV infection and clinical depression<sup>1</sup>. In the absence of interferon therapy comorbid depression, cognitive decline and fatigue are common<sup>4</sup>. According to the DSMIV criteria, reported prevalence rates for major depressive disorder are higher in those with Hepatitis C than the general population. As estimated, 24 to 70 percent of people with chronic Hepatitis C are clinically depressed as compared to estimated 6 to 10 percent of the general population<sup>4</sup>. Elevated rates of depression in untreated HCV patients can be a barrier to initiating HCV therapy and can impact fatigue and physical symptoms.

Depression was associated with fatigue and increased somatic complaints, improved detection and treatment of depression could reduce disability and facilitate treatment for depressed HCV infected patients<sup>5</sup>. Being aware of depression's prevalence among this population, will encourage both patients and their physicians to take depression seriously.

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This study was conducted to estimate the frequency of depression among untreated hepatitis C positive patients presenting to department of Medicine, Sheikh Zayed Hospital, Rahim Yar Khan.

### PATIENTS AND METHODS

This descriptive, cross sectional study was conducted in the department of Medicine, SZH, RY Khan, from February 04, 2013 to October 16, 2013. In this study, 200 patients above 13 years of age and of both sexes were included. All the pre diagnosed HCV positive cases, not getting any treatment for Hepatitis C, visiting the out patients department were asked for detailed history and depressive symptomatology, after informed consent<sup>6</sup>. Patients with cirrhotic liver disease, complicated diabetes, advanced renal, hepatic, heart failure and hypothyroidism were excluded. All the information was collected on the proforma by structured interview.

We included patients pre-diagnosed as hepatitis C positive but they were not on any medication, to assess the prevalence of depression among these patients as suggested by some researchers that virus itself can be a factor for inducing some pathology resulting in depression. For prevalence of depression, we assessed the patients with the help of Hamilton Depression Rating Scale (HDRS)<sup>7</sup>. Data was analyzed using SPSS Version 16.

## RESULTS

In this study a total of 200 patients were included, with the mean age of the patients was 37.8 years, and a range of 13 to 65 years. The overall frequency of depression was 38%, whereas, 24(12%) patients had mild depression, 40(20%) patients had moderate depression, 8(4%) patients had severe depression and 4(2%) patients had very severe depression, while 62% patients were not having depression (Table I)

Table I: Frequency of level of depression among study subjects

Level	Frequency	Percent
Mild	24	12
Moderate	40	20
Normal	124	62
Severe	8	4
Very Severe	4	2

Suicidal tendency was reported by only two patients (2%). Regarding sex differences in occurrence of depression, out of 116 females, 52 were depressed (i.e., 44.82%) and out of 84 males 24(28.5%) were depressed (Fig. 1).

Fig. 1

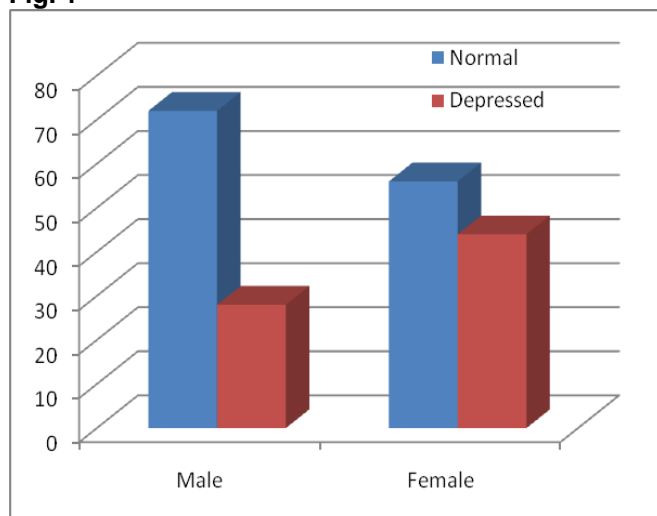


Table II: Prevalence of depression among different age groups

Age (years)	Frequency	Percent
13-20	8	4
21-30	60	30
31-40	44	22
41-50	56	28
51-60	28	14
61-65	4	2

It was noted that the prevalence of depression was highest among age group 21-30 years followed by 41-50 years 28% and 31-40 years 22%. None of the patient was on anti depressants or had referral to mental health care provider at any stage of depression.

## DISCUSSION

Hepatitis C is, and will remain for some time, major health problem in Pakistan and the entire world. In common with patients with other significant medical illnesses, patients with hepatitis C have high rates of psychological symptoms and reduced quality of life compared with the general population<sup>3</sup>.

A high prevalence of depressive symptoms has been reported<sup>8,9,10</sup>. Elshahawi et al reported depression in 30% of patients with the absence of treatment with IFN<sup>9</sup>. Earlier researches showed a range of between 28% and 35%<sup>11,12,13</sup>.

In our study, depression is reported in 38% of patient, so it is in accordance with other studies. This provides the impact of chronic hepatitis C as a potent trigger for depression, irrespective of IFN-alpha treatment, presence of alcohol or substance abuse<sup>14</sup>.

Etiopathogenic factors in this group are multiple, ambiguity, complexity, inconsistency and unpredictability of the course of illness<sup>15</sup> alterations in brain metabolites as evident by magnetic resonance imaging spectroscopy<sup>16</sup> and emotional volatility and perception of stigma are among the causes of depression in this population<sup>17</sup>.

## CONCLUSION

Although our study is not population based study, it corroborates presence of depression among patients who did not take any treatment suggesting that depression is also caused by disease process itself. However, a well designed study is required to study the association of HCV and depression. It is also recommended to start psychiatric assessment at the beginning of therapy, to search for early predictors of depression.

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