

Frequency of Depression In patients With HCV On Interferon Alfa Therapy

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ABSTRACT

Objective: To determine frequency of Depression in Patients with chronic hepatitis C (HCV) on Antiviral Therapy and to compare the results with international studies. **Study Design:** Cross sectional Descriptive studies. **Settings:** In outdoor patients of medicine department DHQ hospital Faisalabad. **Duration:** From 01-08-2016 to 31-01-2017. **Methodology:** Adult patients of either gender with HCV were included in the study. Patients of hepatocellular carcinoma and HIV with were excluded. Nonprobability consecutive sampling technique was used. After enrollment of patients according to criterion an informed consent was taken. As per criterion, questionnaire Performa was filled, data analyzed, results were compiled on SPSS version 22. **Results:** We included 50 patients. Age ranged from 18-60 years (mean =40.50±15.2years). Out of these 50 patients (48%) had depression, 36% were below 30 years of age and 64% were above 30 years. Patients below 30 years with depression were 14 % (7) and patients above 30 years having depression were 34% (17 pt.). Out of 48 % (24 patients) having depression, 16% (8) had mild, 14% (7) had moderate and 18% (9) had severe depression. Patients seen during second month of treatment with depression were 6% (3) and patients seen during third month had depression were 22% (11) and patient seen during 4-6th month of treatment with depression were 20% (10) (p value 0.306). Patient seen in third month of treatment were having maximum number of patients with depression. **Conclusion:** Depression is common during antiviral therapy in Pakistani population and needs to be considered in most of patients with hepatitis C. patients above 30 years are more predispose to depression.

Key words: Depression, HCV and Antiviral therapy.

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INTRODUCTION

Hepatitis C virus (HCV) infection is a global health problem that affects about 185 million people with an estimated prevalence of 2.8%.¹ Not only increasing mortality and morbidity of HCV-related advanced liver diseases, but also patient-reported outcomes, including quality of life or mental health status lead to a significant global disease. Chronic hepatitis C is an infection caused by hepatotropic virus called HCV that infects the liver and may lead to cirrhosis of liver complicated by HCC and decompensation of liver.

Usually acute hepatitis C causes extrahepatic manifestations most commonly involving joints, muscles and skin.

Acute HCV has good response to treatment and a chance to clear the virus after interferon treatment.

Patients in need of treatment are those having advanced fibrosis, compensated cirrhosis, liver transplant recipients and those with extra hepatic manifestations. Primary goal of treatment is to achieve the sustained eradication of HCV.

The second goal is to prevent progression to cirrhosis, HCC and decompensated liver disease requiring liver transplant.

Treatment is recommended for patients with high ALT, Age greater than 18 years. Positive PCR for HCV RNA, compensated liver disease (No history of Ascites), Hb>13-12 g/dl, WBC>1500 and Creatinine<1.5.

The treatment of HCV advanced over many years. Initially IFN monotherapy was used and then addition of Ribavirin was done. IFN alpha has been used in chronic HCV patients in a dose of 3 Million IU Subcutaneous injections 3 times per week for 24 weeks. Side effects of IFN therapy include fatigue (8-90%), Fever (34-94%), Neutropenia (92%), Flu like syndrome (29%), Myalgia (28-75%), Anorexia (1-69%), Leukopenia (68%), Nausea (17-66%), Elevation of transaminase (13-63%), Weakness (63%), Headache 21-62%, Chills 54% and Diarrhea is reported in 2-45%, Rigors 42%.

Many chronic diseases cause depression in majority of patients.^{2,3} Previous studies in Western countries showed that patients with chronic HCV infection were associated with high prevalence of psychiatric and neurologic abnormalities and reported in up to 40% of patients on IFN therapy for Chronic HCV leading to suicidal ideation/attempts and actual suicide. Pegylated interferon α and ribavirin therapy (PR therapy) can induce depression so that uncontrolled pretreatment depression is a major contraindication of PR therapy in chronic hepatitis C (CHC) patients.

Although direct acting antivirals are applied to CHC patients, PR therapy is still widely used in many Asian countries and resource-limited regions.⁴⁻⁶

Alopecia, dyspnea, somnolence, vomiting and Anorexia are other adverse effects.

Contraindications of IFN therapy include hypersensitivity to human IFN, Alpha Protein, Mouse, egg protein and Neomycin. The above-mentioned depression frequency during interferon therapy in Chronic HCV patients is from Western studies and there are no local large studies available. Therefore, we conducted a study to look for frequency of depression during interferon therapy in our patients.

METHODOLOGY

Study Design: Cross sectional Descriptive studies.

Settings: In outdoor patients of medicine department DHQ hospital Faisalabad.

Duration: From 01-08-2016 to 31-01 -2017.

Methods: 50 patients were included in the study. Depression proforma was filled with information according to questionnaire. Patients were seen during different timings of treatment. Some patients were seen during second month, some were seen during third month and some were seen during 6th month of treatment.

For screening of depression, ICD 10 criteria for the diagnosis of depression was used for each patient.^{10,11} The standardized range of ICD 10 for depression patients were categorized as mild depression, moderate and severe depression. A chi square test was applied regarding frequency of depression. A p-value of <0.05 was considered to indicate a statistically significant difference. Data were analyzed using SPSS for Windows version 22.0

RESULTS

We Included 50 patients. Age ranged from 18-60 years (mean =40.50±15.2years). Out of these 50 patients (48%) had depression.

Regarding age distribution, 36% were below 30 years of age and 64% were above 30. Patients below 30 years with depression were 14% (7) and patients above 30 years having depression were 34% (17 patients)

Out of 48% (24 patients) having depression, 16% (8) had mild depression and 14% (7) had moderate depression and 18% (9) had severe depression.

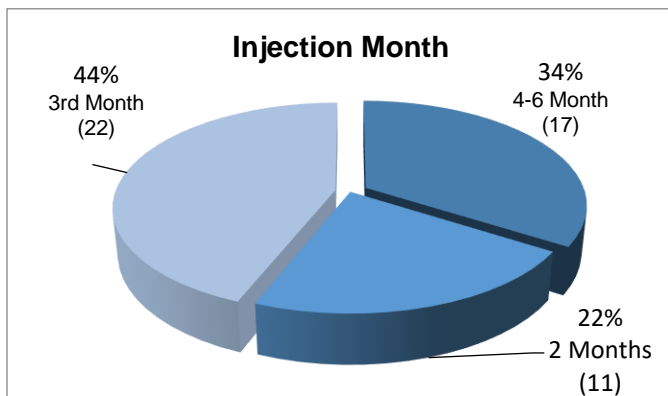


Figure 1: Patients seen in different months of treatment

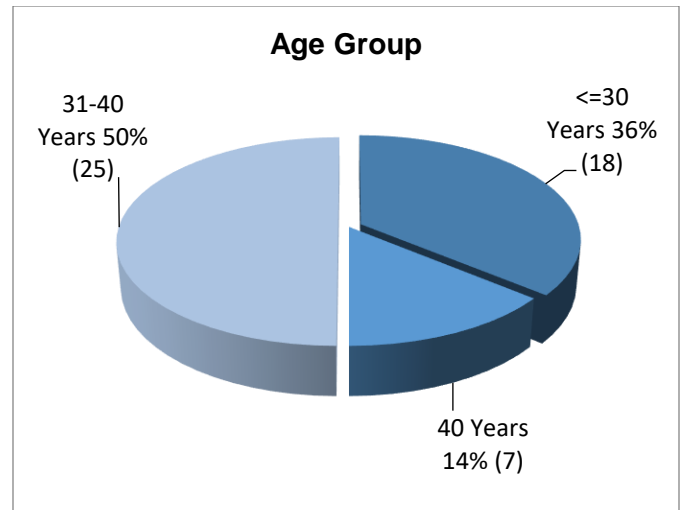


Figure 2: Showing different age groups

The patients seen during second month of treatment with depression were 6% (3) and patient seen during third month having depression were 22% (11) and patient seen during 4-6th month of treatment having depression were 20% (10) (p value 0.306). Patient seen in third month of treatment were having maximum number of patients with depression.

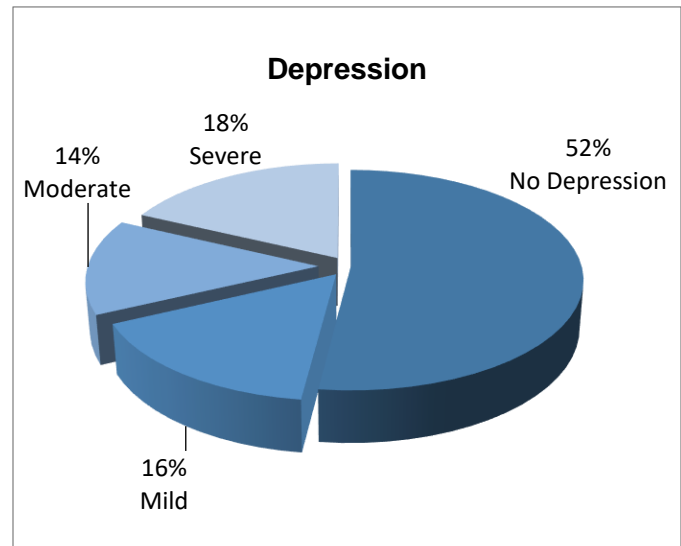


Figure 3: Percentage of patients in different grades of depression

DISCUSSION

patients with HCV are increasing worldwide day by day and there are more and more concerns about complications of hepatitis C virus. Depression is associated with HCV patient and it is more common in patients of HCV with antiviral therapy ranging from 2% to 82% in different studies.^{1,9,10,17}

In a study conducted by Lucas Pereira Jorge de Modeiros et al published in Feb 2014 on fifty HCV patients, 46 % patients were found to have depression which is almost comparable to our finding of 48% patients with depression.¹⁰

In another study by Izabel Lligouri et al was published in Jan/Mar. 2016 on HCV patients on interferon therapy patients were followed for evaluation regarding depression. 32 patients were included in this study with mean age 54 ± 11.13 years. Depression was found in 25 % of patients and there was more trend of females with depression, although 25 % is lower percentage than our study. There may be geographical difference and secondly the population under study was small (32 patients only).¹⁸

In study published in Egyptian journal by Eman R, Elsafy et al, 2014. 100 patients with HCV were enrolled. Prevalence of depression in treated cases was 40%, which is comparable to our finding of 48%. This slight difference may be due to geographical population under study.⁷

In a study of by Joo Yeong Baeg et al was done in Korean republic 2017. There were 114 patients of HCV and depression symptom were developed in 34.6% of patients receiving antiviral therapy which is also favoring our results although slightly less than our study but still showing higher percentage of patients developing depression during antiviral therapy.⁸

In a study conducted by Vitale G et al in advances in pharmacoepidemiology and drug safety 2015 in Italy. In this study 590 patients were included. Mean age was 54 ± 13 years. In this study new onset of depression and psychiatric symptoms on interferon therapy was found to be 49.2% of patients. That is almost comparable to our finding of 48% favoring our study.¹²





CONCLUSION

Depression is common during antiviral therapy in Pakistani population and needs to be considered in most of patients with hepatitis C. patients above 30 years are more predispose to depression.

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AUTHORSHIP AND CONTRIBUTION DECLARATION

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