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Research Article

OCCURRENCE OF DEPRESSION IN THE PATIENTS SUFFERING FROM CHRONIC INFECTION OF HEPATITIS C VIRUS

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Abstract:

Objectives: The aim of this research work is to find out the rate of occurrence of depression in the patients suffering from chronic HCV infection prior to interferon treatment utilizing the CES-D questionnaire.

Methodology: The positive patients for antibodies of hepatitis C virus with the utilization of the EIA for duration of more than six months and who did not obtain interferon treatment were the part of this research work after giving their written consent. The patients who were suffering from co-existing infections like hepatitis B & D virus or HIV virus, or the patients available with other co-occurring liver diseases as cirrhosis, auto-immune hepatitis and Wilson disease were not the part of this research work. CES-D in Urdu version managed to collect the information. Ascore of greater than ten was the standard for consistent with the availability of depression.

Results: Total 96 patients were the part of this research work in which 59.40% patients were available with depression. There were 57.90% males & 42.10% females in this research work. We saw the high occurrence in the under-graduate's students & there was a positive association with the duration of the HCV infection.

Conclusions: The findings of this research work showed that 59.40% patients suffering from HCV infection were available with depression before the start of therapy it necessary to assess and treat this issue before the start of the interferon treatment.

KEY WORDS: Interferon, Treatment, Utilization, HCV Infection, Depression, EIA.

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INTRODUCTION:

Infections due to HCV are very serious issue of health in our country Pakistan, with an occurrence of 16.0% in some regions [1]. Greater than 170 million persons of the world had got the infection of HCV, this shows about approximately 2.50% population of the world and about 32.30 million populations from are the countries of South Asia [2,3]. Because of no presence of the vaccine in the world, we did not see downward trend of the occurrence of HCV infection as present in the case of HBV infection, though there are similar modes of spread in both cases, approximately 3 to 4 million fresh patients are available each year [4, 5]. The 3rd most frequent impact of infection of HCV is depression, concluded in 70.0% patients of HCV infection who did not have the Interferon treatment, led by fatigue (86.0%) & irritation (74.0%) [6]. The occurrence of the depression is much high in the patients available with HCV infection (24% to 70%) as compared to the normal population (6% to 10%) [7, 8]. A current study on depression presenting in the interferon treatment displayed significant variation in the rate of occurrence and amount of interferon-induced depression from 0-82.0% because of disparity in criteria, the protocol of treatment & cutoff values [8]. This emphasizes the significance of the identification of this complication while managing the infection due to HCV. The treatment of interferon does not only induce the depression but this also increases the level of the already present depression [9].

There is very low EVR (Early Virological Responses) in the patients present with symptoms of depression in comparison with the patients without depression [10]. The usage of anti-depression treatment in these patients is the reason of improvement of SVR (Sustained Virological Response) [11]. Due to high danger of the adverse outcome of the treatment, the treatment of the depression is necessary before the therapy for HCV infection [12]. This research work carried out to determine the prevalence of the depression in the patients of HCV infection prior to interferon treatment with the utilization of the CES-D questionnaire.

METHODOLOGY:

We enrolled the adult patients of HCV infection at Allied Hospital Faisalabad in this research work.

Patients with positive infection of HCV diagnosed by EIA for more than six months before the interferon treatment were the part of this research work after giving their written consent. Patients suffering from other serious diseases were not the part of this research work. The CES-D Questionnaire is best for the identification of the depression [13]. The scale of CES-D was available to calculate the symptoms of depression in the general public. There were twenty different items in the questionnaire as symptoms of the depression, guilt feeling, retardation, disturbance in sleep & worthlessness. Score of greater than ten took consistent with the presence of depression.

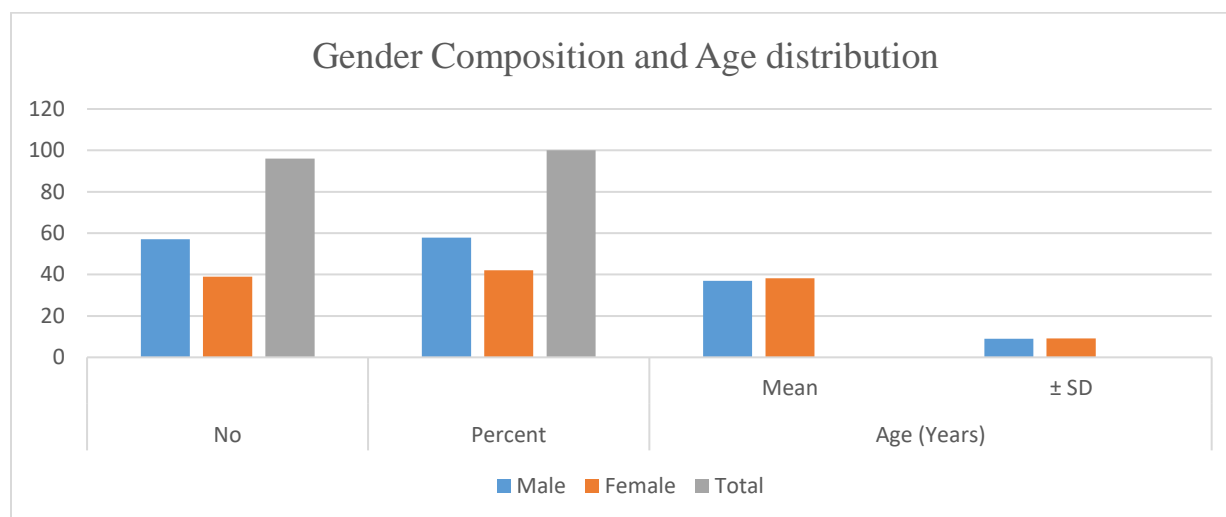
Total 96 patients fulfilling the inclusion standard were the part of this research work. There 59.40% (n: 57) male patients and 40.60% (n: 39) patients were female. After obtaining the written consent from the patients, we collected the blood samples from the patients for the test of anti-HCV whose analysis carried out with the utilization of the EIA in the laboratory of the Allied Hospital Faisalabad. We gave the CES-D questionnaire to the patients in the waiting room. There were question in both Urdu & English Language in the questionnaire. A researcher helped the patients for completing the questionnaire PASW V.18 was in use for the statistical analysis of the collected information.

RESULTS:

Total 96 patients fulfilling the inclusion standard were the part of this research work. There 59.40% (n: 57) male patients and 40.60% (n: 39) patients were female (Table 1). The average age of the patients was 38.20 ± 9.20 years. The average age of the males and females were 36.90 ± 8.90 & 38.30 ± 9.30 years respectively. There were 12.50% (n: 12) uneducated patients, 27.10% (n: 26) patients were available with education of up to matric, 32.30% (n: 31) patients were intermediate, 25.0% (n: 24) patients were graduates & 3.10% (n: 3) patients were available with post graduate education. Majority of the patients were available with the previous history of the infection due to HCV for <2 years. The average rating on CES-D scale was 16.30 ± 6.20 . Out of total ninety-six patients of HCV infection, depression was present in 59.0% (n: 57) patients, among patients with depression, 36.80% (n: 33) patients were available with mild-moderate symptoms for depression & 63.20% (n: 27) patients were available with severe symptoms of depression.

Table 1: Sample Composition and Age Distribution

Gender	No	Percent	Age (Years)	
			Mean	\pm SD
Male	57	57.9	36.9	8.9
Female	39	42.1	38.2	9.2
Total	96	100	-	-



The depression frequency was much high in the male patients in comparison with the female patients, among depressed cases, 57.90% (n: 33) patients were male & 42.10% patients were female. The rate of occurrence of much high in the students who were undergraduate. Among depressed patients, 26.30% (n: 15) patients were undergraduate, 38.50% (n: 22) patients were from intermediate, 19.29% (n: 11) patients were available with matriculation whereas 12.20% patients were not educated. The study of the association of the scores of CES-D with the age carried out with the help of Pearson-correlation test & it was unable to show any significant association. We study the association of scores of CES-D with the previous history of the disease with the Kendell's Test & found a strong association. This result described that high scores of depression were present in the patients having a long past history of the infection due to HCV. There was no association of the depression with the level of education of the patients.

DISCUSSION:

This is very strong association of the infection of HCV with the mental complications as depression [14, 15]. The availability of the symptoms of depression in the patients of HCV infection has much significance because they have many adverse influences on the illness with the increase of physical abnormalities, low compliance of the treatment & decreased life quality [16]. Psychiatric abnormalities are the major causes for the irregular pattern and delay of the interferon therapy [17]. Proper treatment of the HCV infection needs early identification and administration of the depression prior to treatment [16]. The cause of the high occurrence of depression in the patients of HCV infections are not clear, some views that these are the outcome of the disease [18]. Most of the research work rely on the local self-organized scales rather than a proper psychiatric

evaluation, making it very complicated to observe the medical importance of the findings.

The patients suffering from the infections of HCV have very high occurrence of mental issues and decreased life quality in comparison with the normal population [15, 19, 20]. Kenny-Walsh stated a 16.0% occurrence of the mood of depression in medical files of about four hundred Irish females suffering from HCV infection [21]. Lee stated an occurrence of 24.0% for depression in five hundred patients and Dwight, utilizing the proper psychiatric interview, discovered 28.0% occurrence for depression in fifty patients [16, 22]. The prevalence of depression in the patients having infections of HCV ranges from 24.0% to 50.0%, we discovered very level of depression in our patients. This finding was similar with the results of other research works. The

difference of gender is also very important aspect, as stated by various research works of our country Pakistan where the occurrence of the depression is about two times in the female patients in comparison with the male gender [23-25]. The treatment of the depression at an important stage of the disease can provide better results [26]. SSRI have displayed the effective results in the administration of the depression in the infections due to HCV with excellent outcome [19, 27].

CONCLUSION:

A very large amount of the patients suffering from the infection of HCV have depression in accordance with the scale of CES-D in this current research work. There was a strong association with the duration of the disease and negative association with the level of education.

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