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Identification Of The Rate Of Frequency Of Depression In Untreated Patient Of Chronic Hepatitis C

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Abstract:

HCV is the major Health problem around the world due to HCV number of liver related disease is happened. The disease is caused Hepatitis C virus a positive sense RNA virus belongs to Flaviviridae family. Study reported that about 7% population of Pakistan are infected from HCV.As we know that Hepatitis C is clearly associated with depression. In this study we evaluate the frequency rate of depression of untreated individual of Hepatitis C in the department of medicine and Gastroenterology at Lady Reading Hospital Peshawar Kp Pakistan. In the current study227 HCV patient were examined. Every patient was interviewed and then clears by the doctor himself. A proper Health Questionnaire of patient was used for the identification of depression. Depression was managed as per hospital protocol. The study was held from 15 February, 2019 to15 august 2019. In the Current study the ratio of male patient

were 64% while the ratio of female patient were 36% .However the Depression ratio of the Patient Were 59 % and 45% patient having no depression .From the current study we conclude that there is strong associationbetween Chronic Hepatitis C and Depression.

Key words; Chronic, Hepatitis C, Depression,

Introduction.

Globally, the Hepatitis C virus (HCV) is the most common causative agent of chronic viral liver diseases (1). Currently, there has been an in-crease in the number of HCV cases around the world and it has emerged as one of the frequent causes of acute and chronic liver diseases.(2) HCV is positive sense single-stranded an enveloped RNA genome.(3) The Mortality rate of HCV is very high around 350,000 people die every year after acquired HCV infection.(4) According to WHO reports the morbidity of HCV infection has a high impact on public health, approximately 170million individuals are infected with HCV infection worldwide. (5)The epidemiology of hepatitis C virus (HCV) infections in the United States(US) has changed dramatically over the last decade, with notable increases in HCV incidence among young people aged approximately 15–29 years.(6) The Middle East and North Africa (MENA) region is the most affected region by HCV infection, with approximately 15 million individuals chronically infected.(7) HCV infection mainly occurs through parental routes such as past blood transfusions intravenous drug abuse involving sharing of syringes, and the use of unsterilized medical or non-medical device. (8,9) In Pakistan major risk factors for the transmission of HCV include intravenous injecting after reusing syringes and needles, and sharing of blades at barber shops(9,10). Depression is a type of mood disorder characterized by low mood, anhedonia (lack of pleasure) and anergia (abnormal lack of energy). These should be present for over two weeks. Hepatitis has many associate complications resulting from hepatic insufficiency and portal hypertension hence having an overall negative impact on quality of life of the patients. It may also give rise to non hepatic complications such as depression, sleep disorders, fatigue, among others (10,11). The Prevalence of Depression in patients of Hepatitis C is estimated to 59.4|% making it the most common psychiatric symptom in such patients. Quality of life is reduced as a result of mental health issues which eventually effect negatively to the compliance towards the treatment. Depression can diagnosed by ICD- 10 criteria or the DSM-IV criteria and can be further termed as mild, moderate, severe or severe with psychotic features. Laboratory investigations are not helpful for confirmation of its diagnosis which is basically made through proper history and physical examination. A large number of international and local studies are available on depression in chronic hepatitis C, but the focus only been kept on treatment related depression only (112,13). The main Purpose and objective of

the current study was to determine the frequency rate of depression in patients of chronic hepatitis C who had not yet received treatment.
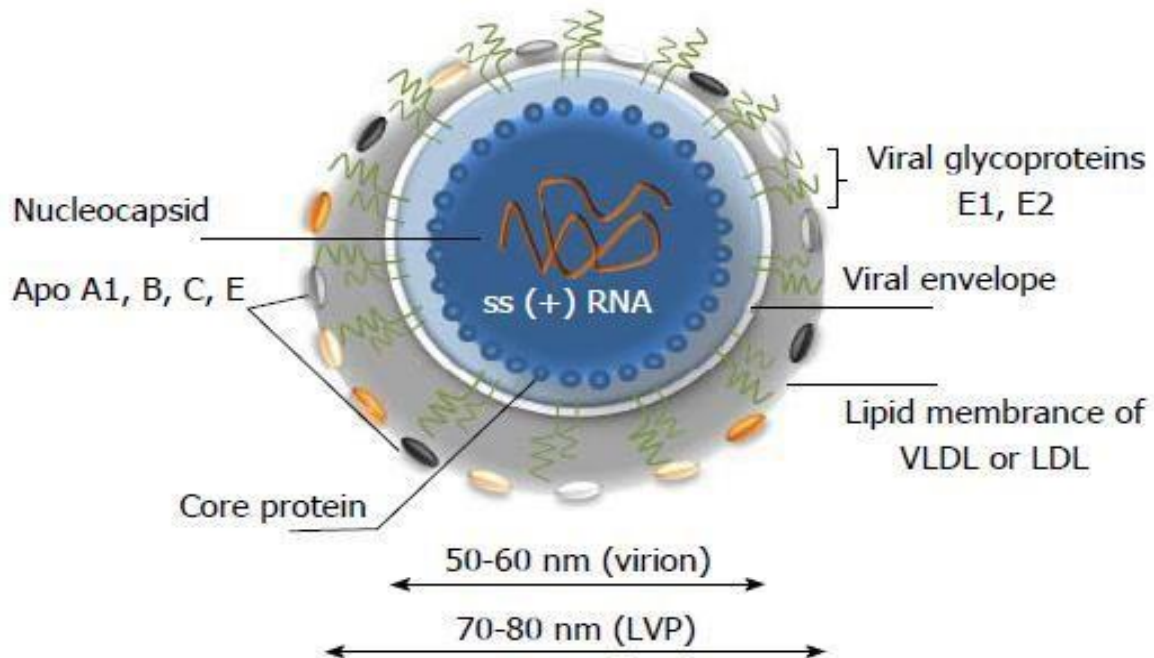
Fig 2 Structure of HCV

Material and Methods.

The Present Research work was conducted at the department of medicine and Gastroenterology at Lady Reading Hospital Peshawar Kp Pakistan in the duration of six months after the approval of Ethical Committee of Hospital Administration. Sample size was 227 keeping expected percentage of depression in patient with chronic hepatitis C 61.4%5, 94% confidence interval, 12% margin of error. According to WHO formula for sample size technique used for sampling was consecutive non-probability sampling technique.

Fig 2 MAP OF DISTRICT PESHAWAR

Data collection

Before starting the current research Ethical approval for the Present research was taken from the administration of Hospital. All the patients satisfying the inclusion criteria were enrolled through the patient department (OPD) or admitted in wards of Medicine and gastroenterology department at Lady Reading Hospital Peshawar Kp Pakistan. For Patient Information Proforma and consent form are attached in Annexure-I. Each patient was interviewed and details were noted by us. Patient Health Questionnaire (PHQ-9) was translated into Urdu as well (Annexure-2) and was applied to determine the incidence of depression. Depression was managed as per hospital protocol and help was also taken by a senior clinical psychiatrist with vast experience in this field in dealing such cases to confirm our findings to avoid any bias.

Statistical analysis

All the data was entered and analyzed in IBM SPSS 23.0. Qualitative variables i.e. Age and duration of Hepatitis C were presented in the form of mean and standard deviation SD. Qualitative

variables i.e. gender, socio economic status, educational status was presented in frequency and percentages. Data was stratified for gender, age, duration of Hepatitis C, socio economic status, education status. Post stratification chi square test was applied in which P value ≤0.05 was considered as significant.

RESULTS

Age group distribution showed that 24(10%) patients were in age ranged 18-30 years, 41(18%) patients were in age ranged 31-40 years, 76(34%) patients were in age ranged 41-50 years, 84(38%) patients were in age ranged 51-60 years. Mean age was 45 years with standard deviation±11.33. 142(64%) patients were male, 85(36%) patients were female. Duration of HCV among 217 patients was analyzed as 111 (51%) patients had duration of HCV≤1 year while 106(49%) patients had duration of HCV> 1 year. Mean duration was 1 year with standard deviation ± 4.21 (Table 3). As per socioeconomic status, 115(53%) patients were poor, 76(35%) patients were middle class,26 (12%) patients were rich. 110(51%) patients were illiterate, 85(39%) patients were metric, 22(10%) patients were higher.124(57%)patients had depression while 93(43%) patients didn't had depression. Out of these 124, 66 belonged to poor economic status, 43 to middle classand 15 were from rich economic class (p value 0.91).Stratification of depression with respect to age, gender, duration of Hepatitis C and education status is given in table 1, 2, 3 respectively.

Table1: Stratification of depression w.r.t age distribution. (n=227)

Depression	18-30 years	31-40 years	41-50 years	51-60 years	Total
Yes	13(5.5%)	23(10.1%)	44(19.3%)	48(22.1%)	128(57.1%)
No	11(4.6%)	18(7.8%)	34(14.7%)	36(15.6%)	99(42.8%)
Total	24(10.1%)	41(17.9%	74(34.1%)	84(37.7%)	227(100%)

Table 2: Stratification of depression w.r.t gender distribution and duration of HCV (n=227)

Depression	Age			Duration of HCV		
	Male	**Female**	**Total**	**≤ 1 year**	**> 1 year**	**Total**
Yes	79(35.4%)	49(21.6%)	128(57.1%)	65(29.0%)	63(28.1%)	128(57.1%)
No	61(26.7%)	38(16.1%)	99(42.8 %)	51(22.1%)	48(20.7%)	99(42.8 %)
Total	**140(62.2%)**	**87(37.7%)**	**227(100%)**	**117(51.1%)**	**110(48.8%)**	**227(100 %)**

Table 3: Stratification of depression w.r.t education level (n=227)

Depression	Illiterate	Matric	Graduates	Total
Yes	65(29.0%)	49(22.1%)	14(5.9%)	128(57.1%)
No	49(21.6%)	39(17.0%)	11(4.1%)	99(42.8%)
Total	**114**(50.6%)	**88**(39.1%)	**25**(10.1%)	**227**(100%)

Discussion

Hepatitis C is a global issue. It is a major reason for both acute and chronic hepatitis. Total global HCV prevalence is estimated at 2.5%6. As per estimates of World Health Organization (WHO), around 3% of the total population of the world has been infected with this virus while there are over 170 million carriers who can develop advanced liver disease, including cirrhosis or even Hepatocellular Carcinoma (13,14). The HCV, which is a blood borne virus which can be transmitted through various means, such as transfusion of blood products without proper screening, use of injections without following safe

guidelines and poor sterilization of medical equipment. In one study conducted in Peshawar KPK, risk factors distribution among 252 HCV positive patients was: intravenous drug abuse 29%, HCV positive sexual partners 23.01%, blood or blood product transfusion 13.49%, occupational exposure to HCV 7.14% and sporadic transmission 27.38%. Out of the total sample 54.36% had positive family history of hepatitis C (15,16).Patients that has chronic Hepatitis C infections is highly vulnerable to develop liver cancer or cirrhosis. The number of people infected with Hepatitis C virus is increasing dramatically. Its prevalence is more than 200 million worldwide and its yearly incidence is 3-4 million worldwide.(13,14).In different regions of Pakistan, the prevalence of Hepatitis C has varied from 2.2%-13.5% in last 5 years. Lahore has the highest prevalence which is 13.5%, followed by Jamshoro (9%) and Mardan (9%) (17,18).The mean age in our study was 45 years with standard deviation ±11.33. 64% patients were male, 36% patients were female. 57% of the patients were found to have depression. In another study report show that 59.4% of the total population included in the study were depressed. 57.9% of the sample was males and 42.1% were females. A positive correlation was found with the duration of the illness and depression. These results are very similar to our study. (19,20).The other study report show that depression was found in 29% of the patients with Hepatitis C and 7% had severe depression (17,18). While comparing age groups and gender, patients less than 30 years and females had higher incidence of depression (p = 0.009). Level of education, occupation, socioeconomic status, duration of illness, and treatment of hepatitis C was other factors which had a correlation with prevalence of depression (21,22). There is a significant association of Depression in patients infected with HCV. The prevalence ranges from 25% to 50%. (19). In our study, the prevalence was found to be 59.4% which is substantial however it is similar to the figures reported by several international studies (23,24). An important factor found to be related with higher prevalence was the Gender. In several studies carried out in our country, the prevalence of depression was sometimes twice in women when compared to men (25,26). However in our study, no significant difference was noted with respect to gender.

CONCLUSION

Our study concluded that among chronic hepatitis C patients, 57% had previously undiagnosed depression. Health care practitioners must keep this aspect in mind while treating such patients, as timely diagnosis and management can avoid many complications and improve quality of life

Future Recommendations:
Hepatitis C causing depression is a disease with high rates of cure but if undiagnosed or untreated patients can greatly affect the quality of life so further multicentre studies with larger sample size are

still required. It is the need of the day to create awareness among general population and for general practioners through electronic media, print media and arranging seminars and symposia about the disease and its early diagnosis and so as to prevent the complications related with this disease and by doing so reducing the misery and improving the quality of life.

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