ASSESSMENT OF HEALTH-RELATED QUALITY OF LIFE PATIENTS UNDERGOING TREATMENT OF HEPATITIS C COMING TO HEPATITIS CLINIC IN JINNAH HOSPITAL LAHORE

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Abstract:
Background: In recent past years Hepatitis C burden in Pakistan is keep on increasing. In this article we assessed the Health-related quality of life (HROOL)of Hepatitis C patients undergoing antiviral treatment especially interferon Antiviral treatment cause significant side effects on quality of life of patient.
Methodology: In this study short form 36(sf-36) questionnaire was used to assess of quality of life of 121 antiviral treated hepatitis c patients.36 items of sf-36 were divided in to 8 scales and mean score was calculated for each scale. Descriptive statistic measures were used for data analysis.
Result: Subject showed scores below 50 in 7 out of 8 scale which indicated poor health related quality of life(HROOL) Hepatitis C patients on antiviral treatment. HROOL was affected in both genders equally regardless of treatment of duration.
Conclusion: The study indicated poor health quality of life (HROOL)of antiviral especially interferon treated Hepatitis C patients. the study highlighted need of monitoring of health status throughout. the result can be used as reference to improve healthcare facilities for Hepatitis C patients under antiviral treatment.
Keywords: Hepatitis C, antiviral treatment, interferon, health related quality of life of patient.

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INTRODUCTION:
Many people in the world are infected with hepatitis C [1]. Approximately160 million people in world are infected with hepatitis C.it has many consequences medical as well as psychosocial [2]. Infection with hepatitis C virus have negative effect on psychological status of patient since it is observed in different studies that anxiety mood and personality disorder are common among hepatitis C patient [3]. Interferon-alpha is widely used for hepatitis C treatment [4].

Most common side effect observed during treatment which influence quality of life of hepatitis C patients include fever, fatigue, flu like symptoms insomnia, anxiety, decreased concentration and muscle pain [5]. Interferon-alpha is a cytokine. It changes the peripheral availability of tryptophan which is serotonin precursor. This links interferon-alpha therapy to development of depression [6].

In study carried by Bonaccorso et al, it was observed that 40.7% of patient taking interferon/Ribavirin treatment were suffering from depression according to diagnostic criteria for major depressive episode of DSM-lV. ln a study which used MDI scale for evaluation of psychiatric symptoms during Antiviral treatment for chronic hepatitis C, it was observed that one third of patients suffered from major depression[7].Depression is so served that is may lead to suicide ideation [7,8].

MATERIAL AND METHODS:
In this study we used SF-36 Questionnaire. This questionnaire contains 36 items divided into 8 scales. Scales are physical functioning, Role physical, Bodily pain, vitality, social functioning, Role emotional, Mental health. In SF-36 scale, score ranged from 0-100.High scores indicated better health related quality of life. This is a well-established tool and is widely used for purpose. The scale is derived from standard SF-36 scoring algorithm. Informed consent was taken from all participants after explaining the purpose of study, procedure and the right to withdraw.

STUDY DESIGN:
Cross sectional study
STUDY SETTING:
Hepatitis Clinic (OPD Room # 2), Jinnah hospital Lahore.
DURATION OF STUDY:
Three months
SAMPLE SIZE:

121
SAMPLING TECNIQUE
Non probability/purposive sampling
SAMPLE SELECTION:
Inclusion Criteria :
Either gender

HCV patients confirmed by ELISA and PCR

OBJECTIVES
The objective of this study is to analysis quality of life of hepatitis C patients undergoing treatment with interferon.

OPERATIONAL DEFINATION:
Physical functioning: Ability to perform such physical activities as self -care walking and physical activities.
Role physical: The extent to which physical health of a person limits in performing usual activities (childcare, professional activities).
Bodily pains: intensity, duration and frequency of bodily pains and the extent to which they limit them in usual activities.
General health: what a person thinks about his own health**,** rating of current health status overall
Vitality: available energy as felt by the subject, absence of disease.
Social functioning: the extent to which a person is able to develop and maintain social relationship: family, friends etc.
Role emotional: the extent to which emotional problems of a person limits in usual activities such as child caring, professional activities etc.
Mental health: emotional, cognitive and intellectual state of a person.

Taking Interferon for at least one month.

EXCLUSION CRITERIA
Patients with overt medical illnesses like cancer, lymphomas, tuberculosis.   Patients with psychotic illnesses. Patients on corticosteroids

DATA COLLECTION PROCEDURE
SF-36 Questionnaire was administered to antiviral treatment Hepatitis C patients coming to Hepatitis C Clinic, OPD room #2 Jinnah Hospital Lahore. Total 121 subjects were randomly selected who were confirmed as Hepatitis C cases by PCR and ELISA. Informed consent was taken from them. Authority to withdraw any time from this study was explained to them.

DATA ANALYSIS PROCEDURE

Data was analyzed by using SPSS version 17. Demographic items included were age, gender and treatment duration. SF-36 consists of 36 items. All questions are scored on a scale from 0-100.100 represent highest level of functioning. Aggregate scores are compiled as a percentage of total points possible .The scores from those questions that addressed each specific area of functional status together, for a final score within each eight dimensions measured Ten items(Q no 3,4,5,6,7,8,9,10) are included in the scales of physical functioning (PF).Four items (Q no. 13,14,15,16)are include in the scale of Role Physical(RP).Three items (Q no,17,18,19) are included in the scale of Role emotional(RE).four items(Q no .23,27,29,31) are included in the scale of vitality (VT).Five items(Q no. 24,25,26,28,30)

Table 3 shows that, in the scale of; Physics functioning, Role physical, Social functioning and Bodily pains frequency of females having scores below 50 is more than males. In the scale of; Role emotional, Vitality, Mental health and General health frequency of males having scores below 50 is more than females. Highest difference of frequency of low scores is noted in the scale of Role emotional with 86.2% male showing below 50 as compared to 79.3% of female having score below 50. This table also shows health related quality of life is almost equally affected in both genders.

Table 4 shows that, in the scale of; Physical functioning, Role physical, Vitality, Mental health, Social functioning and General health more patients of age group 18-40 years have scores below 50 as compared to patients of age group 41-62 years. In the scale of Role emotional and Bodily pain more patients of age group 41-62 years have score below 50 as compared to patients of age 18-40years. P value for vitality is significant i.e.057 (p value <05or p value=0.05).

included in the scale of Mental health (MH). Two items (Q no.20,32) are included in the scale of Social functioning (SF). Two items (Q no.21,22) are included in the scale of bodily pains. Five items (Q no. 1,33,34,35,36) are included in General health (GH).

RESULT AND MAIN FINDINGS

In our study,121 subjects were enrolled. Out of which29 (24%)were male and 92(76%)were female. Age of subjects ranged from 18-62 years; 5.8% patients belonged to age group of 18-25 years, 57% subject belonged to age group 26-50 years and 37% belonged to age group 41-62 years. Total treatment duration to hepatitis C is 6 months. In our study, we enrolled patients having treatment duration ranged from 1-5 months.8.3% had treatment duration of 1 month, 0.8% had of 1.5 month,13.2% had of 2 months, 10.7% had of 3 months,22.3% had of 4 months and 44.5% had of 5 months.

Table 2 shows that in 121 subjects, average score of role physical was lowest with a score of 20. 87%(S.D=32.49). while average score of physical functioning was highest with a score of 54.42(S. D=24.25). Seven scales score below 50; Mental health (40.76, S. D=16.33), Social functioning (40.39, S. D=22.05), General health (38.09, S. D=16 .5), Bodily pain (30,91, S. D= 24.64), Vitality (27.68, S. D=17.95), Role emotional (22.31, S. D=33.44).

Table: 1
Background information about subjects

Construct	Frequency	Percentage
Gender		
Male	29	24
Female	92	76
Age (years)		
Young age (18-20)	76	62.8
Old age (41-62)	45	37.2
Duration of Treatment (Months)		
1	10	8.3
1.5	1	0.8
2	16	13.2
3	13	10.7
4	27	22.3
5	54	44.6

Table: 2
Scores of SF-36 of HCV Patients Undergoing Treatment

Scale	Mean	Std. Deviation
Physical functioning	54.4215	24.24863
Role physical	20.8740	32.48758
Role emotional	22.3140	33.44106
Vitality	27.6033	17.94763
Mental health	40.7603	16.33250
Social functioning	40.3926	22.05346
Bodily pain	30.9091	24.64117
General health	38.0992	16.49616

Table: 3
Frequency of Low and High Score of SF-36 Scales in Relation to the Gender

Scale	Score	Gender of Subject		Chi-square P value
		Male Column N %	Female Column N %	
Physical functioning	Low (scorev0-50)	44.8 %	46.7 %	.032
	High (score 51-100)	55.2 %	53.3 %	0857
Role physical	Low (scorev0-50)	86.2 %	87.0 %	.011
	High (score 51-100)	13.8 %	13.0 %	.917*
Role emotional	Low (scorev0-50)	86.2 %	79.3 %	.674
	High (score 51-100)	13.8 %	20.7 %	.412
Vitality	Low (scorev0-50)	93.1 %	90.2 %	.222
	High (score 51-100)	6.9 %	9.5 %	.637*
Mental health	Low (scorev0-50)	75.9 %	72.8 %	.104
	High (score 51-100)	24.1 %	27.2 %	.747
Social functioning	Low (scorev0-50)	75.9 %	79.3 %	.159
	High (score 51-100)	24.1 %	20.7 %	.690
Bodily pain	Low (scorev0-50)	75.9 %	79.3 %	.159
	High (score 51-100)	24.1 %	20.7 %	.690
General health	Low (scorev0-50)	89.7 %	83.7 %	.618
	High (score 51-100)	10.3 %	16.3 %	.432*

Table: 4: Frequency of Low and High Score of SF-36 Scales According to Age

Scale	Score	Gender of subject		Chi-square P value
		Male Column N %	**Female Column N %**	
Physical functioning	Low (scorev0-50)	47.4 %	44.4 %	.097
	High (score 51-100)	55.6 %	55.6 %	0755
Role physical	Low (scorev0-50)	86.2 %	84.4 %	.340
	High (score 51-100)	11.8 %	15.6 %	.560
Role emotional	Low (scorev0-50)	80.3 %	82.2 %	.070
	High (score 51-100)	19.7 %	17.6 %	.791
Vitality	Low (scorev0-50)	94.7 %	84.4 %	3.623
	High (score 51-100)	5.3 %	15.6%	.057*
Mental health	Low (scorev0-50)	76.3 %	68.9 %	.801
	High (score 51-100)	23.7 %	31.1 %	.371
Social functioning	Low (scorev0-50)	82.9 %	71.1 %	2.326
	High (score 51-100)	17.1 %	28.9 %	.127
Bodily pain	Low (scorev0-50)	77.6 %	80.0 %	.094
	High (score 51-100)	22.4 %	20.0 %	.759
General health	Low (scorev0-50)	85.5 %	84.4 %	.026
	High (score 51-100)	14.5 %	15.6 %	.872

DISCUSSION:

This study showed adverse effect of hepatitis C treatment on the health-related quality of life of subjects. The study results indicated that health quality of life is very much affected in antiviral (specially interferon) treated hepatitis C patients [9]. It was found that in seven scales mean score was below 50. Lowest mean score was observed in the scales of role physical (20.87) and role emotional (22.31). only one scale of physical functioning showed average score above 50 (54.42) [10]. Lowest value of role physical and role emotional indicated that usual activities such as child caring and professional activities of subjects under antiviral treatment are badly affected due to physical health and emotional problems. Average score of vitality scale is 27.6, which is also very low indicating fatigue and low energy felt by subjects [11]. Low score of 30.91 in scale of bodily pains indicated that usual activities of subjects are also badly affected because of pains in the body. Subjects felt that their current health status was not good which is shown by low score in general health scales (38.1) [12]. the low scores of mental health (40.76) and social functioning (40.39) showed that the subjects had emotional, cognitive, and intellectual problems. They also had difficulty in maintaining social relationships [9,10].

The studies conducted in other parts of the worlds also showed significant adverse effects on health-related quality of life of subjects undergoing hepatitis c treatment. The mean scores in our study for three scales; general health, social functioning, mental health was comparable to another study conducted in Romania [13]. The mean score for general health in our study was 38.1 as compared study while 35.94 in that study [14]. The probable reasons for low scores in our reading could be low socioeconomic status of subjects since government was finding for treatment in hepatitis clinic, Jinnah hospital for patients who could not afford cost of treatment [15].

CONCLUSION:

Our study showed poor health related quality of life (HRQOL) of antiviral treated hepatitis C patients coming to Jinnah hospital Lahore. Treatment has affected both genders equally. Treatment has affected energy levels (vitality) more in younger age group i.e. 18-40 years. Our results are comparable to other researches. psychiatric evaluation of patients should be done before initiation of antiviral therapy. Proper counselling should be done about adverse effects of treatment. The psychological and physical reactions to diseases are unpredictable so patient's health should be monitored very carefully during treatment so that adverse effects are identified at an early stage and treated accordingly. Treatment of adverse effects, supportive and organized. Environment helps to improve compliance of patients.

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