

Impact of Hepatitis C on Quality of Life

Parveen Malhotra*, Naveen Malhotra, Vani Malhotra, Ajay Chugh, Ishita Singh, Abhishek Chaturvedi and Parul Chandrika

Department of Medical Gastroenterology, Anesthesiology, Gynecology & Obstetrics, PGIMS, India

Submission: March 09, 2016; **Published:** March 22, 2016

***Corresponding author:** Parveen Malhotra, Head, Department of Medical Gastroenterology, PGIMS, Rohtak, Haryana (124001), Tel: 9215372663; Email: drparveenmalhotra@yahoo.com

Abstract

Hepatitis means inflammation of the liver causing destruction of liver tissues and it can be caused by various etiological factors, including hepatitis C. There is marked decline in the quality of life of hepatitis C patients which has been established by number of studies conducted worldwide. A prospective study was carried out among three thousand patients of hepatitis C. In it patients were regularly assessed physically & psychologically, before starting of treatment, during treatment, at end of treatment and when they came after six month of completion of treatment i.e. sustained virological response (SVR). The major aims of this study were to assess the quality of life of the patients suffering from hepatitis C, estimation of the patient compliance with the management methods, assessment of the patient satisfaction with the medicines, comparison of the quality of life of the suffering patients with their optimum health state and the comparison of the quality of life of the patients during and after the management/treatment of the disease. The study showed that the patients were not satisfied with their quality of life during their ailment whereas majority expressed that their quality of life improved after receiving medical treatment. In few patients who developed psychological symptoms like depression and anxiety due to Pegylated Interferon, required long term antidepressants and anti-anxiety drugs, even after successful completion of treatment and achievement of SVR.

Keywords: Hepatitis C; Quality of life; Depression; Fatigue

Abbreviations: SVR: Sustained Virological Response; HCV: Hepatitis C Virus

Introduction

Hepatitis is a disease characterized by inflammation of the liver, usually producing swelling and, in many cases, permanent damage to liver tissues [1]. Hepatitis C virus (HCV) is a member of Flaviviridae family and one of the major causes of liver disease [2]. Up to 80% of infected individuals are asymptomatic. Chronic infection with the hepatitis C virus (HCV) has a profound effect on health-related quality of life [3]. Depressive symptoms, Anxiety, Insomnia, Anorexia, poor quality of life, fatigue, myalgia and abdominal pain have been reported in hepatitis C patients [4]. Sexual dysfunction is highly prevalent in men with chronic HCV infection [5]. The hepatitis C virus (HCV) crosses the blood-brain barrier; biological factors are commonly blamed for the high rates of mood disturbance in HCV infected patients [6]. Parenteral and sexual transmissions increase one's risk of infection so a significant population of pregnant patients is at risk [7]. Individuals who have used intravenous drugs, recipients of clotting factors made before 1987, recipients of blood or solid organs before 1992, hemodialysis patients, anyone with undiagnosed liver problems, infants born to HCV positive mothers and health care workers

who have been exposed to the virus should be screened for hepatitis C [8]. There are no effective measures for preventing perinatal hepatitis C transmission, but transmission rates are less than 10 percent [9]. Antibody to hepatitis C virus was found in 45% of patients within 6 weeks of onset of illness [10]. Major HCV genotypes constitute genotype 1, 2, 3, 4, 5 and 6 while more than 50 subtypes are known and HCV has a very high mutational rate that enables it to escape the immune system [11]. It causes potentially massive damage to the liver and is also associated with high levels of morbidity and mortality [12]. Recipients of kidneys from anti-HCV antibody positive donors are at increased risk of mortality [13]. Hepatitis C infection is the commonest cause of cirrhosis worldwide [14]. In addition to its effects in the liver, HCV infection can have serious consequences for other organ systems e.g. extrahepatic manifestations include vasculitis, lymphoproliferative disorders, renal disease, insulin resistance, type 2 diabetes; reductions in quality of life involve fatigue, depression, and cognitive impairment [15]. Chronicity of the disease leads to cirrhosis, hepatocellular carcinoma and end-stage liver disease. Recurrent hepatitis C after liver transplantation is

nearly universal and may even lead to death. Liver transplantation is currently the only definitive modality for the treatment of end-stage liver disease due to chronic hepatitis C [16]. Promoting effective HCV education among vulnerable populations may be an important factor in reducing the disparities in HCV disease [17]. Psychosocial support may be beneficial to HCV patients. Injection drug users are at high risk for infection with several blood-borne pathogens, including hepatitis C virus [18]. The study was conducted to check whether hepatitis C influences the quality of life of its victims or not & in case of its influence, the major aspects of life which are most commonly influenced due to illness are determined. This study significantly explains the impact of this disease on most of the attributes of quality of life i.e. social, psychological, physical & economic.

Material and Methods

It was a prospective study and was carried over three thousand confirmed cases of chronic hepatitis C who visited Hepatitis C Nodal center at PGIMS, Rohtak for over period of three years i.e. 1st January 2013 to 31st December 2015. Important parameters of quality of life which are most commonly affected by illness in acute and chronic infection by Hepatitis C virus were identified and a Performa was made keeping in view these parameters. The detailed case histories of 3000 patients were taken on this Performa and relevant factors were noted such as age, sex, duration of hospitalization, causes, clinical diagnosis, treatment and quality of life throughout the disease and after the therapeutic measures have been taken. The patients having Co infection with HBV and/or HIV, significant disease including liver disease history of drug or alcohol dependence or addiction within the past 6 months were excluded from the study. The Quality of Life parameters were used to measure the relationship between a patient's quality of life and other behaviors or afflictions, such as financial state, physical health, psychological health etc. The following attributes of quality of life were studied i.e. financial cost of illness and treatment, Job loss due to disease, Side effects of therapy, routine activities affected, life expectancy, Mental distress, unstable mood patterns, altered behavior as irritability and lack of patience, lack of confidence, altered interpersonal relations or Influence on sexual life.

Results

Data of 3000 patients with Hepatitis C was evaluated in detail and it was found that there was marked decline in the quality of life of patients suffering from hepatitis C, majorly due to the extra hepatic effects, common symptoms and fear of this disease. The main worry among patients was whether it can be cured or not, about the side effects during treatment and about normal life span after successful completion of treatment. The parameters analyzed during the study along with their percentage are given in Table 1.

Table 1: The parameters analyzed during the study along with their percentage.

Study Parameters	Percentage
Hospital Admission Emergency	7% OPD 93%
Symptoms Relieved With Medications	Yes 87% No 13%
Satisfaction with Treatment	Satisfied 85% Unsatisfied 15%
Present Quality Of Life	Good 5% Bad 87% Poor 8%
Financial Distress Increased Due To Illness	Yes. 79% No 21 %
Prolonged Depression	Yes 65% No 35%
Interest in Maintaining Health	Yes 68% No 32%
Illness Lead to Withdrawal from Job	Yes 35% No 65%
Stability in Emotional/Mental State	Stable 59% Unstable 41%
Increase In Irritability and Stress	Irritability 78% Stress 65%
Negative Impact On Interpersonal Relationships	Yes 62% No 38%
Satisfaction with Sexual Life	Yes 29% No 71%
Spouse either Healthy or having Hepatitis C	Healthy 96% Infected 4%
Difficulty in performing Physical Activities	Yes 60% No 40%
Increased Lack of Confidence and Patience	Confidence 53% Patience 73%
Improvement in Quality Of Life with Treatment	Improved 85% Not Improved 15%
Patient Compliance with prescribed treatment	Good 93.5% Poor 6.5%

Discussion

Hepatitis C affects not only liver but has many extra hepatic symptoms. The virus results in inflammation and cirrhosis of liver, thereby influencing the quality of life of the HCV patients. Assessment of the quality of life in patients in various chronic diseases is becoming significant. The treating physician, councilors and other involved health professionals can help the patient by counselling them to improve their quality of life in Hepatitis C. The most common symptoms of hepatitis C e.g. fatigue, myalgia, anxiety, depression abdominal pain, GI abnormalities exacerbate the quality of life of patient. Though Hepatitis C rarely results in early death of patient but complications due to attack of virus on liver and subsequent systematic effects are very common. Quality of life is influenced majorly due to the latter complications. In worse cases where liver decompensation occurs and present with jaundice, ascites, pedal edema, encephalopathy, hepatorenal syndrome and hematemesis are detected; quality of life is severely deteriorated. Quality of life is also affected by the patient's personal perception regarding his or her condition. Patients assume that their imperfect health state is responsible for disconnecting

them from enjoying their normal life and daily activities which ultimately leads to poor psychological and social behavior. This impression of patient not only influences patient but also friends and relatives. Patients are reluctant to participate in social gatherings. They start building gaps from their own family. One of the reasons is the fear of transmitting their disease to others. Depression is very common among the HCV patients. Hepatitis C virus is reported to cross blood-brain barrier and causes mood disturbances. Irritability and stress associated with HCV patients has a negative impact on their interpersonal relationships. HCV patients lack confidence and patience. Conclusively, many behavioral changes are observed in the HCV patients. Financial state of patients is also contracted. Patient is unable to perform not only routine work but his ill health also deprives him from his ability to perform various tasks at their employment centers. Also, the treatment of this disease is expensive and not affordable by a majority of the population in developing countries, disturbing the patients psychologically. Now with availability of cheaper Interferon free regimen in developing countries like India, this psychological aspect is bound to decrease. Hepatitis C rarely transmits sexually, yet patients are reluctant to maintain their normal sexual activities due to the fear of infecting their partners. Some cases are also found in which spouse of patient is also found to be infected with hepatitis C so patients should be advised about ways to perform safe sex and keep their relations healthy. Hepatitis C up till now was usually treated with interferon, which has some serious side effects, affecting quality of life adversely. Quality of life, though poor during treatment with interferon, usually improves greatly after the completion of the treatment. Thus, the patients are usually satisfied with the treatment. It is the duty of treating Physician and his team to inform patient about the common side effects of interferon before the initiation of therapy so that the compliance of patient is appreciable. The good news is availability of Interferon free regimens which will now at least decrease the burden of side effects of interferons.

Conclusion

The quality of life of patients suffering from hepatitis C is significantly affected. This decline is mainly due to extra hepatic effects, common symptoms and fear of this disease. The main worry among patients is whether it can be cured or not, about the side effects during treatment and normal life span after successful completion of treatment. It is not only the health but social, financial, sexual and family life of the patients is adversely affected due to the virus. People with hepatitis C report less confidence in their current health and more concern about their health in the future. It is the duty of treating physicians and their team to assess the effects of hepatitis on the quality of life of patients and counsel them properly and regularly, so that they can improve their quality of life. There has to be emotional connect between the treating team and patients which will definitely prove to be

turning factor in successful completion of treatment and thus increasing quality of life needy patients who are suffering from this deadly disease.

References

1. Weigand K, Stremmel W, Encke J (2007) Treatment of hepatitis C virus infection. *World J Gastroenterol* 13(13): 1897-1905.
2. Munir S, Saleem S, Idrees M, Tariq A, Butt S, et al. (2010) Hepatitis C treatment: current and future perspectives. *Virology* 7: 296.
3. Foster GR (2009) Quality of life considerations for patients with chronic hepatitis C. *J Viral Hepat* 16(9): 605-611.
4. Bailey DE, Landerman L, Barroso J, Bixby P, Mishel MH, et al. (2009) Uncertainty, symptoms, and quality of life in persons with chronic hepatitis C. *Psychosomatics* 50(2): 138-146.
5. Danoff A, Khan O, Wan DW, Hurst L, Cohen D, et al. (2006) Sexual Dysfunction is Highly Prevalent Among Men with Chronic Hepatitis C Virus Infection and Negatively Impacts Health-Related Quality of Life. *Am J Gastroenterol* 101(6): 1235-1243.
6. Wilson MP, Castillo EM, Batey AM, Sapyta J, Aronson S (2010) Hepatitis C and depressive symptoms: psychological and social factors matter more than liver injury. *Int J Psychiatry Med* 40(2): 199-215.
7. Joffe GM (1995) Hepatitis C Virus in Pregnancy: Case Reports and Literature Review. *Infect Dis Obstet Gynecol* 3(6): 248-251.
8. Gutelius B, Perz JF, Parker MM, Hallack R, Stricof R, et al. (2010) Multiple clusters of hepatitis virus infections associated with anesthesia for outpatient endoscopy procedures. *Gastroenterology* 139(1): 163-170.
9. Lam NC, Gotsch PB, Langan RC (2010) Caring for pregnant women and newborns with hepatitis B or C. *Am Fam Physician* 82(10): 1225-1229.
10. Alter MJ, Hadler SC, Judson FN, Mares A, Alexander WJ, et al. (1990) Risk factors for acute non-A, non-B hepatitis in the United States and association with hepatitis C virus infection. *JAMA* 264(17): 2231-2235.
11. Bostan N, Mahmood T (2010) An overview about hepatitis C: a devastating virus. *Crit Rev Microbiol* 36(2): 91-133.
12. Saravanan S, Velu V, Kumarasamy N, Nandakumar S, Murugavel KG, et al. (2007) Coinfection of hepatitis B and hepatitis C virus in HIV-infected patients in South India. *World J Gastroenterol* 13(37): 5015-5020.
13. Fabrizi F, Martin P, Messa P (2010) Hepatitis B and hepatitis C virus and chronic kidney disease. *Acta Gastroenterol Belg* 73(4): 465-471.
14. Wadhawan M, Rastogi M, Gupta S, Kumar A (2010) Peritransplant management of chronic hepatitis C. *Trop Gastroenterol* 31(2): 75-81.
15. Jacobson IM, Cacoub P, Dal Maso L, Harrison SA, Younossi ZM (2010) Manifestations of chronic hepatitis C virus infection beyond the liver. *Clin Gastroenterol Hepatol* 8(12): 1017-1029.
16. Narang TK, Ahrens W, Russo MW (2010) Post-liver transplant cholestatic hepatitis C: a systematic review of clinical and pathological findings and application of consensus criteria. *Liver Transpl* 16(11): 1228-1235.
17. Surjadi M, Torruellas C, Ayala C, Yee HF, Khalili M (2011) Formal patient education improves patient knowledge of hepatitis C in vulnerable populations. *Dig Dis Sci* 56(1): 213-219.
18. Esteban R (1993) Epidemiology of hepatitis C virus infection. *J Hepatol* 17(Suppl 3): S67-S71.