Sleep Disturbances and Quality of Life Among Hepatitis C Infected Individuals

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Abstract

Objectives: Hepatitis C virus (HCV) infection is associated with fatigue, anxiety, and depression. Little is known about the impact of the sleep disturbances on health-related quality of life (HRQoL), and what factors are associated with such disturbances.

Methods: This study is based on data from the EU National Health and Wellness Survey (N=57,805), a cross-sectional database representative of the adult SEU population. Patients who reported being diagnosed with HCV by a physician and provided household income and body weight information were included for analysis (N=135). Patients who reported experiencing insomnia or sleep difficulty symptoms in the past year (n=135) were compared with patients who did not experience such symptoms (n=116). Sleep group membership was predicted with a logistic regression model, while mental and physical HRQoL scores were also predicted with multiple regression models. Covariates included age, gender, marital status, education, income, employment, body mass index, smoking, drinking, hospitalization, physician diagnosis of hepatitis C and who also provide household income and population. The NHWS is a cross-sectional database representative of the 5EU adult population (France, Germany, Italy, Spain, and UK) that is stratified by gender and age to reflect the demographic composition of each individual country.

Introduction

► It is estimated that between 1.1 and 1.3% of the European population is infected with hepatitis C. 1, 2
► Previous studies have found the burden of illness associated with HCV infection affects both social and physical health-related quality of life (HRQoL). 3, 4
► By examining the effects of highly prevalent comorbidities, physicians are able to target treatments to address specific health issues and thereby improve the quality of life of their hepatitis C patients. 5, 6

Measure

► Covariates included age, gender, marital status, education, income, employment, body mass index (BMI), exercise and smoking habits, alcohol use, self-reported physician-diagnosed HAV and HIBADIS and hepatitis C. Medical comorbidities (anxiety, phobias, post-traumatic stress disorder, generalised anxiety disorder, obsessive compulsive disorder, and panic disorder, collectively referred to as “anxiety”) and depression.

► HRQoL was assessed using the SF-12v2, yielding a mental component summary score and a physical component summary score.

Methods (continued)

Statistical Analysis

► Bivariate analyses of respondent demographics and comorbidities were evaluated by chi-square tests for categorical variables and independent sample t-tests and ANOVA for continuous variables.

► Sleep group membership was predicted with a logistic regression model, while mental and physical HRQoL (SF-12) were predicted with multiple regression models.

Results

► Of all self-reported diagnosed hepatitis C patients in SEU, 45% (n=135) had some form of sleep disturbance. Sleep disturbances were significantly more prevalent for patients that tended to be male, married, employed, of middle income, and have less than a university education. Their mean age was 52.3 years (Table 1).

► Health-wise, hepatitis C patients also tended to be overweight or obese and to currently smoke, drink alcohol, and exercise.

► Five percent of patients were co-infected with HIV/AIDS and 13% with hepatitis B, while 28% had experienced depressive symptoms in the past year (Table 1).

► When examining the differences between hepatitis C patients with sleep disturbances and those without, patients with sleep disturbances were significantly younger (50.3 vs. 54.0 years, p=0.001), and 17% were also more likely to currently smoke (58% vs. 40%, p<0.0001) (Table 2).

► However, patients with sleep disturbances were significantly more likely to have HIV/AIDS (p=0.023), anxiety, or depression (p<0.0001) (Table 2).

► After controlling for covariates, the presence of sleep disturbances were found to have a significant effect on lowering mental (HRQoL in hepatitis C patients (41.2 with sleep disturbances vs. 46.3 without). This difference is considered to be clinically meaningful. However, sleep disturbances had no significant effect on physical HRQoL (Figure 1).

► SF-12 mental HRQoL scores in hepatitis C patients were also significantly lowered by the presence of anxiety (p=0.5) or depression (p=0.001) (Table 3).

Conclusion

► Sleep disturbances are common among hepatitis C patients in SEU, affecting nearly half of patients.

► In this study, anxiety and depression have been identified as the primary predictors of SEU hepatitis C patients experiencing reduced sleep quality.

► Even after adjusting for anxiety and depression, sleep disturbances have a clinically significant negative impact on mental HRQoL.

► The results suggest that the treatment of sleep disturbances among people with hepatitis C may reduce their mental distress of hepatitis C patients with sleep disturbances vs. 46.3 without). This difference is considered to be clinically meaningful. However, sleep disturbances had no significant effect on physical HRQoL (Figure 1).

► SF-12 mental HRQoL scores in hepatitis C patients were also significantly lowered by the presence of anxiety (p=0.5) or depression (p=0.001) (Table 3).

References