Original Article

Sexual Dysfunction in Females with Chronic Hepatitis C

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Abstract

Background: Female sexual dysfunction (FSD) in patients with Hepatitis C (HCV) is highly prevalent, affecting up to 50% of female patients. Primary complaints include diminished sexual drive, arousal difficulties, orgasmic disorders, and pain during intercourse. These issues are driven by a complex mix of physiological and psychological factors. Fatigue is one of the most common HCV symptoms, draining the energy required for intimacy. Chronic illness, fear of transmission, and the stigma associated with HCV often lead to mental health challenges that directly lower libido. Severe liver disease or advanced cirrhosis alters sex hormone metabolism, which can impact vaginal lubrication and desire. Certain antiviral treatments or medications prescribed to manage HCV-related conditions can cause side effects that impair sexual function. The aim is to determine the prevalence of sexual dysfunction among female patients with chronic Hepatitis C at a Northern Indian tertiary care facility. **Material and Methods:** This study was carried out at PGIMS, Rohtak's Medical Gastroenterology Department. In this one-year prospective trial, which ran from April 1, 2025, to March 31, 2026, 200 individuals with diagnosed hepatitis C were asked if they had any form of sexual dysfunction. For better understanding 100 patients each of F0-F3 fibrosis and F4 (cirrhosis) on antiviral treatment were enrolled in the study. All 200 HCV patients were females, in 20-50 yrs age group and were sexually active. The sexual history was taken by female doctor or female nursing officer only, thereby removing the inhibition of sharing personal history with male health care worker. Patient with past history of sexual dysfunction, anxiety, depression, diabetes mellitus, hypertension, hypothyroidism which can cause sexual dysfunction were not included in the study. Enzyme linked immunosorbent assay (ELISA) testing for anti-HCV antibodies and polymerase chain reaction (PCR) testing for quantitative HCV RNA were used to establish the presence of hepatitis C in every patient. **Results:** As a Model Treatment Center (MTC) under the National Viral Hepatitis Control Program (NVHCP), our department is among India's high flow facilities. On daily basis, 5-6 new and 20 follow up patients of HCV come for consultation and till date 12,500 HCV patients have been enrolled in last twelve years in this program. A prospective investigation of 200 patients with diagnosed hepatitis C revealed that none of them smoked, drank alcohol, or used intravenous drugs. All of the patients were female. Out of total pool of 200 HCV patients, 100 patients each of F0-F3 fibrosis and F4 (cirrhosis), on antiviral treatment were enrolled in the study. The sexual dysfunction was seen 10% (20 patients). Out of them 13 (65%) were cirrhotic and 7 (35%%) belonged to F0-F3 group. Most common kind of sexual dysfunction was avoidance of sexual intercourse due to fear of HCV transmission to the sexual partner (16 patients, 80%), followed by loss of libido (3 patients, 15%) and failure to achieve sexual orgasm (1 patient, 5%). Out of 100 patients of HCV related cirrhotic patients, sexual dysfunction was seen in 13 patients (13%). Out of them 10 (76.92 %) had avoidance of sexual intercourse due to fear of transmission to sexual partner, followed by loss of libido (2 patients, 15.38%) and lack of achievement of sexual orgasm (1 patients, 7.69%). In group of 100 patients of Chronic Hepatitis C with F0-F3 fibrosis, total 7 patients (7%) had sexual dysfunction. Out of them 6 (85.71%) had avoidance of sexual intercourse due to fear of transmission to sexual partner, followed by loss of libido (1 patients, 14.29%) and none had lack of achievement of sexual orgasm. **Conclusion:** Patients with hepatitis C require a more comprehensive approach to treatment, and each patient should be assessed not just from a hepatic perspective but also for any other hepatic effects, including sexual examination. Females have less sexual dysfunction in respect to males due to non-intake of alcohol and smoking in our geographical location. It can be due to good counselling leading to decrease of fear about illness. Some elements of underreporting due to sexuality being a personal and sensitive issue cannot be ruled out.

Keywords: Hepatitis C, Anti-HCV antibody, HCV RNA Quantitative, women, sexual arousal, infertility.

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Introduction

An estimated 170 million people worldwide suffer from chronic hepatitis C virus (HCV) infection, which is a serious health concern.[1] Only those with severe or advanced viral hepatitis exhibit symptoms and signs; otherwise, the illness is usually silent.[2] A significant component of life quality is sexuality. While research on sexual transmission in HCV-positive individuals has been conducted, very little emphasis has been paid to these patients' sexual functioning. It is unknown how frequently patients with chronic hepatitis C experience sexual dysfunction (SD).[3] The pathogenesis of sexual dysfunction is

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multifactorial, with all contributing factors being more prevalent in individuals with cirrhosis. In addition to symptoms like ascites and hepatic encephalopathy that further affect sexual function, liver malfunction and portal hypertension cause altered metabolism and sex hormone trafficking as disease severity rises. Additionally, a lot of cirrhosis patients also have co-occurring disorders like anxiety, despair, and chronic pain, all of which can impair sexual performance. These disorders are frequently treated with medications (such as opioids, sedatives, and antidepressants) that have been shown to cause sexual dysfunction.[4] Studies show that sexual dysfunction (SD) is a common, under-recognized sequela of chronic HCV, affecting both men and women. While older interferon-based therapies were known to cause significant sexual dysfunction, modern direct-acting antiviral agents (DAAs) have shown a positive impact, with studies reporting significant improvement in sexual function after successful clearance of virus from body. Depression, often associated with chronic infection, is a significant predictor of SD. Routine sexual health assessment and counselling should be integrated into standard HCV management. Sexual dysfunction is often manageable, with studies suggesting that viral clearance can reverse many of the associated sexual problems.

Aim of Study: To determine the prevalence of sexual dysfunction among female patients with chronic Hepatitis C at a Northern Indian tertiary care facility.

Materials and Methods

This study was carried out at PGIMS, Rohtak's Medical Gastroenterology Department. In this one-year prospective trial, which ran from April 1, 2025, to March 31, 2026, 200 individuals with diagnosed hepatitis C were asked if they had any form of sexual dysfunction. For better understanding 100 patients each of F0-F3 fibrosis and F4 (cirrhosis) on antiviral treatment were enrolled in the study. All 200 HCV patients were females, in 20-50 yrs age group and were sexually active. The sexual history was taken by female doctor or female nursing officer only, thereby removing the inhibition of sharing personal history with male health care worker. Patient with past history of sexual dysfunction, anxiety, depression, diabetes mellitus, hypertension, hypothyroidism which can cause sexual dysfunction were not included in the study. Enzyme linked immunosorbent assay (ELISA) testing for anti-HCV antibodies and polymerase chain reaction (PCR) testing for quantitative HCV RNA were used to establish the presence of hepatitis C in every patient.

Results

As a Model Treatment Center (MTC) under the National Viral Hepatitis Control Program (NVHCP), our department is among India's high flow facilities. On daily basis, 5-6 new and 20 follow up patients of HCV come for consultation and till date 12,500 HCV patients have been enrolled in last twelve years in this program. Out of total pool of 200 HCV patients, 100 patients each of F0-F3 fibrosis and F4 (cirrhosis), on antiviral treatment were enrolled in the study. The sexual dysfunction was seen 10% (20 patients). Out of them 13 (65%) were cirrhotic and 7 (35%%) belonged to F0-F3 group. Most common kind of sexual dysfunction was avoidance of sexual intercourse due to fear of HCV transmission to the sexual partner (16 patients, 80%), followed by loss of libido (3 patients, 15%) and failure to achieve sexual orgasm (1 patient, 5%). Out of 100 patients of HCV related cirrhotic patients, sexual dysfunction was seen in 13 patients (13%). Out of them 10 (76.92 %) had avoidance of sexual intercourse due to fear of transmission to sexual partner, followed by loss of libido (2 patients, 15.38%) and lack of achievement of sexual orgasm (1 patients, 7.69%). In group of 100 patients of Chronic Hepatitis C with F0-F3 fibrosis, total 7 patients (7%) had sexual dysfunction. Out of them 6 (85.71%) had avoidance of sexual intercourse due to fear of transmission to sexual partner, followed by loss of libido (1 patients, 14.29%) and none had lack of achievement of sexual orgasm.

Table 1: Showing sexual dysfunction distribution in total pool of Females with HCV

Total HCV Patients	Females	Males	Sexual Dysfunction Present	Sexual Dysfunction Absent
200	200 (100%)	0 (0%)	20 (10%)	180 (90%)

Table 2: Showing prevalence of sexual dysfunction in various groups of Females with HCV

Total HCV Patients	F0-F3 Fibrosis	F4 (Cirrhosis)
200	100	100
Sexual Dysfunction Present	7 (7%)	13 (13%)
Sexual Dysfunction Absent	93 (93%)	87 (87%)

Table 3: Showing types of sexual dysfunction in various groups of Females with HCV

Total HCV Patients with Sexual Dysfunction	Chronic Hepatitis C- F0 -F3 Fibrosis- On antiviral treatment	HCV Related Cirrhosis- F4- On antiviral treatment
20	7	13
Failure to Achieve Sexual Orgasm	0	1
Loss of Libido	1	2
Avoidance of Sexual intercourse due to fear of HCV transmission to Sexual partner	6	10

Discussion

Disturbances in sexual desire and the psychophysiological changes that define the sexual response cycle are referred to as

SD, and they play a major role in interpersonal conflict and unhappiness. Dyspareunia (pain during sexual activity), decreased sexual desire, arousal problems, and orgasmic abnormalities are the main characteristics of female SD. There is dearth of studies reporting sexual dysfunction in females with chronic hepatitis C, thus the need of doing the same was felt by us. As we are having large pool of chronic HCV patients with approximately 35% female representation with many who were sexually active. Moreover, they were coming for regular follow-up for many years, hence proper analysis was made about sexual dysfunctions. All the details about the same was done by female doctors and nursing officers, for overcoming the inhibition of giving sexual history to male health worker. The sexual dysfunctions in female were almost half in comparison to males.[5] The main difference between two groups was intake of alcohol, smoking and intravenous drug abuse in many HCV patients in male group whereas in females, none had these habits. 33% of female patients with mixed-etiology CLD (apart from alcohol-associated liver disease) reported decreased sexual desire, 18% decreased arousal, 25% difficulties achieving orgasm, and 25% coital dysfunction.[6] Both HCV and HBV infections appear to raise the frequency of viral hepatitis (25%–70% of screened individuals), despite the fact that it is challenging to compare cohorts due to disparate screening methods and inclusion criteria.[7] Fatigue, melancholy, and possibly a diminished interest in sex are frequently linked to chronic hepatitis C.[8] The majority of patients simply talk about their liver condition and its treatment strategy, avoiding talking about issues related to their sexual lives. By talking about this delicate subject, people with HCV can receive the support they need to enhance their quality of life. Sexual life is a manifestation of physical, spiritual, and emotional health.[9] Our study is in alignment with previous study which also emphasize the increased prevalence of sexual dysfunction in HCV infected females.[10] The most common complaint in female was fear regarding sexual transmission of HCV to male partner, thus leading to avoidance of sex. Some male partners also was afraid of getting sexual transmission from their female counterpart and thus avoided sex, some for years together. It is clear from our data that HCV per se has least impact on loss of libido or achievement of sexual orgasm, thus had minimal representation in F0-F3 stage. Whatsoever impact comes, it comes in cirrhotic stage, and it can be perse due to cirrhosis only. The same impact can be appreciated in cirrhosis due to other aetiologies like HBV, MAFLD or autoimmune. The good compliance on drugs, regular follow up, abstinence from alcohol, smoking and drugs leads to improvement or stabilization of disease. The good psychotherapy leads to removal of depression which is an important reason for causing sexual dysfunction.

Conclusion

Patients with hepatitis C require a more comprehensive approach to treatment, and each patient should be assessed not just from a hepatic perspective but also for any other hepatic effects, including sexual examination. Females have less sexual dysfunction in respect to males due to non-intake of alcohol and smoking in our geographical location. It can be due to good counselling leading to decrease of fear about illness. Some elements of underreporting due to sexuality being a personal and sensitive issue cannot be ruled out. The sexual aspect is often missed by treating team as well as not shared by patients. Hence, good repo of doctor with patients will help in healthy discussion among them on this sensitive issue.

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Conflicts of interest

There are no conflicts of interest.

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