Awareness Regarding Sexual Transmission of Hepatitis B and C in Sero-positive Patients

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ABSTRACT

Objective — *To find the level of awareness about hepatitis B and hepatitis C transmission through sexual contact among those suffering from these conditions.*

Study design — *Cross sectional survey.*

Place & Duration of study — *Fatima Hospital, Baqai Medical University and Osmania Hospital Karachi, From January 2017 to March 2017.*

Methodology — *Patients suffering either from hepatitis B and hepatitis C or both, between eighteen to fifteen years were interviewed through questionnaire at the outpatient department.*

Results — *Among ninety-five patients, only thirty-seven patients were aware of sexual transmission of viruses. Twenty-two out of thirty-seven have been using latex condom to protect their mates from getting infected. Fifteen infected patients with HCV or HBV gave history that their mates were already suffering from the same viral illness.*

Conclusions — *Most of the study participants were unaware of the fact that hepatitis viruses can be transmitted through sexual contact. Moreover, females were more aware as compared to males regarding sexual transmission of hepatitis B and hepatitis C.*

Key words — *Hepatitis B, Hepatitis C, Sexual activity.*

INTRODUCTION:

Hepatitis B and C are common infectious diseases, which are prevalent worldwide. World Health Organization claims that number of people infected with hepatitis B and C is 350 million and 170 million respectively, out of which large number of patients belong to third world, as their health system lags behind the western world.[1] Studies have suggested that 500 million people in the world have been effected by HCV and HBV virus, while in Pakistan, 10 million is carrying HCV.[2,3]

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The percutaneous and parenteral routes are two common modes of transmission, for both viruses.[4] These are blood borne infections therefore the risk of transmission is higher in patients who have history of prior blood transfusion, needle stick injuries, or intravenous drug abuse, along with patients who are repeatedly transfused and chronic renal failure patients who are on regular hemodialysis. Viruses can also be transmitted by exposure to patient's infected body fluids. HCV, like HBV is secreted in the body fluids including saliva, semen and vaginal secretions.[5] Studies done suggested that if animals are inoculated with saliva and semen of persons infected with HBV then the disease is transmitted to animals.[6]

Sexual transmission of HBV is an established fact, while for HCV, studies claim that chances are very low, but sufficient data is not available.[7,8] Preventive measures are usually practiced in western world, but unfortunately in Pakistan people are not fully aware of these measures. Moreover, Pakistani people take

sex as their private matter and they cannot openly discuss their activities with anyone including health care workers.

A research was conducted in Lahore in nonmedical universities in an attempt to find out the knowledge of youth about these conditions. Most of the students were fully aware about the transmission of these diseases.[9] Similar type of research has been conducted in Karachi at a festival arranged for Hepatitis day. The sample was drawn from educated people and research concluded that educated people have sufficient knowledge about it.[10] Little data exists on knowledge of the patients who are suffering from these diseases. This study was conducted to know the level of awareness among those who are already affected by these diseases.

METHODOLOGY:

The survey was conducted in the outpatient department of the Fatima Hospital and Osmania Hospital Karachi, from January 2017 to March 2017. The nature of the study was explained to the patients and verbal consent taken. Information was gathered by asking questions from participants. Close ended questions were included in the study in an attempt to assess the participants' knowledge about the appropriate method adopted to avoid transmission of these diseases. The questionnaire had multiple choice questions from which participants were asked to select the right answer. The questionnaire addressed the status of the diseases. Patients who have been aware of the sexual transmission of viruses were interrogated further weather or not they were using any precautionary measures to protect their sexual partner from the diseases. Questions were also asked about steps that were taken by them to prevent their mates from getting infected by these viruses. The statistical software of SPSS, version 20 was utilized to analyze data. For age, Mean + SD was calculated and results of categorical variables were presented in frequency and percentages.

RESULTS:

A total of 95 patients were interviewed. There were 44 (46.3%) males and 51 (53.7%) females with 25 (27.4%) suffering from hepatitis B and 69 (73.7%) with hepatitis C (table I). The mean age of the patients was 42.2 ± 14.14 year. In our data eighty nine patients had active disease and only 19 (20%) were taking drugs to get rid of the disease. Only 7 patients belonged to post treatment group (table II).

Almost seventy percent of patients had no awareness that diseases can spread through sexual transmission (table III). In relation to STD, 28 patients had adequate knowledge about their transmission. Out of them twenty-four had applied precautionary method indicating almost 86%p people were ready to take steps (table IV).

Among 24 patients, who applied precautionary methods, 22 (91.7%) males used condoms and others preferred oral contraceptives (OCP) method. However, the percentage adopting latex condoms was only 23%. Despite having no awareness about STD, two patients used IUCD and two OCP. Withdrawal method was also adopted by one patient. This implies that the adoption of method has been done for birth control not for restriction of transmission. Spouse of three patients suffering from hepatitis B were vaccinated.

DISCUSSION:

Recently European counties have implemented vaccination programs and prevention strategies targeting transmission of that viral disease.[11] The Hepatitis B & C Public Policy Association has claimed that there is a strong likelihood that the region might be able to free from the curse of these viruses, till 2030.[12] On the other hand, people of the developing countries are still unaware of the sexual transmission of HBV and HCV. The prevalence of these deadly viruses has been significantly higher in Asian and African countries, as compared to other regions of the world.

The accurate method of prevention of the sexual transmission of these viruses should be needed to prevent transmission. It will lead to the discussion that people are aware of transmission or not. Use

Table I: Gender Distribution in Terms of Disease

	Male (n)	Female (n)	Total (n)
Hepatitis B	14	11	25
Hepatitis C	29	40	69
Hepatitis B and C	01	00	01
Total	44	51	95

Table II: Gender Distribution in Relation to Disease Stage

Disease	Gender	Active Disease (n)	On Antiviral Treatment (n)	Post Treatment State (n)	Total (n)
Hepatitis B	Female	03	07	01	11
	Male	08	05	01	14
Hepatitis C	Female	35	02	03	40
	Male	23	04	02	29
Hepatitis B and C	Male	00	01	00	01
Total		69	19	07	95

Table III: Comparison of Awareness of Patients Between Two Genders

Awareness	Absent n (%)	Present n (%)	Total
Female	34 (66.7%)	17 (33.3%)	51
Male	33 (75%)	11 (25%)	44
Total	67 (70.5%)	28 (30%)	95

Table IV: Application of Precautionary Measures in Relation to Gender

	Applied (n)	Not Applied (n)	Total (n)
Female	13	04	17
Male	11	00	11
Total	24	04	28

of condoms in Pakistan has increased in the last few decades, but a lot of people still are not utilizing this barrier method.[2,13] Same was noted in this survey.

Lack of public awareness has been the reason of such issue.[14] Pakistan belongs to the region where people do not like to discuss sexual intercourse with others even with doctors. A study has claimed that almost 60% of people were unable to realize how sexual routes can be the source of transmission of these diseases. Level of awareness was also low in our study. Another study depicted similar results, that people belonging to the rural areas of Sindh Pakistan were unfamiliar with sexually transmitted diseases.[16] Our data findings revealed that seventy percent of the respondents had no knowledge about the transmission of these diseases, which is quite an alarming situation.

Our results predict that fourteen percent of respondents have not wished to adopt any method, despite having knowledge about the risk associated with the unsafe sex.[13] Many researches also claim that most of the sex workers are not aware of STD and are not using condoms, which are helping these viruses to grow in our society.[17,18] This also provides information that people have low knowledge about sexual route for transmission of hepatitis viruses. Moreover, some people have some knowledge which is not sufficient enough to stop this transmission.

CONCLUSIONS:

Awareness about unsafe sex and its implication are not satisfactory which could lead to uncontrolled situation. People who belonged to low income group and illiterate section of society lack knowledge about the sexual transmission as route of spread of HBV and HCV.

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