ORIGINAL ARTICLE

Frequency of Hepatitis C in patients of Chronic Liver Disease in Balochistan

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ABSTRACT

Aims: This study was conducted with the aim to document the frequency of hepatitis C Seropositivity in patients with Chronic Liver Disease from every walk of life and every part of Balochistan.

Methods: This was a single centre descriptive study having no control group. Samples of the serum were collected in the "National Program for Hepatitis "and Gastroenterology and surgery Department of Bolan Medical Complex Hospital Quetta during the period from April 2008 to January 2009.HCV antibodies were detected by Elisa Third Generation in Aga khan Unversity Hospital central lab and shoukat khanum memorial hospital Lahore. A sample size of 1054 was calculated, using 5% level of significance margin of error as 5% and an expected frequency of 50%. who belonged to every walk of life in Balochistan In which 554(52.56%) were males and 500(47.43%) were females. The males and females ratio participated in this study was the same the majority of them were from the very poor socioeconomic group and lower middle Class. This is because the treatment was free in the National Program for Hepatitis, and the investigations were funded from the Government Zakat fund.

Results: Total No of 223 (21.15%) patients were positive for HCV antibodies including 128(23.1%) were male and 95(19%) were females. As. The No of male patients participated were 554(52/56%) and female patients were 500(46/43%). The total No of male patients positive for HCV antibodies were 128 (23, 1%), and the male patients Negative for HCV antibodies were 426(76.89%). The total No of female patients positive HCV antibodies were 95(19%), and female patients negative HCV antibodies were 405(81%). The total No of male patients who approached the facility were slightly higher than the female patients, but the percentage of female patients positive for HCV antibodies was lower than the male patients The Majority of the patients had no idea about the vaccination, causative factors, preventing measures, treatment and complications, Which Indicates a very pathetic situation of hepatitis patients in Balochistan.

Conclusion: The frequency of HCV antibodies is quite low in the patients of Chronic Liver Disease who approached our center, and the male and female ratio is not statistically significant. And is quite comparable to the frequency of HCV antibodies in patients of chronic liver disease in different parts of the country and as well as in the international world.

Key words: Hepatitis C. Frequency of hepatitis C. Chronic Liver Disease.

INTRODUCTION

Hepatitis C is RNA Flavivirus, was first characterized in late 9180s. It has six Genotypes and more than 50 sub types. Serofrequency of Hepatitis C virus (HCV) Type 3 is more common in Pakistan[1]. Its high frequency and incidence poses a public health challenge in Pakistan[2] .Hepatitis C continue to be highly prevalent and ranged from a low 5% to as high as 83%. Studies from India has shown 83% frequency in Dialysis patients, 71% in Venizuela and 46% in Saudi Arabia[3].

HCV Frequency is 23.7%in the patients on long term Dialysis4. Hepatitis C has a high propensity for causing Liver Disease, as compared to Hepatitis B virus[5]. Frequency of 75%in cases of Chronic Liver Disease has been reported from India[6]. More than 17-20% of the people in Egypt has Chronic Hepatitis C[7]. In another study done in Pakistan shows 44% of Hepatitis C in Chronic Liver Disease patients[8]. HCV Infection represents 75% of Chronic Hepatitis cases of adults with the possibility of progression to Liver cirrhosis in 20-30%of patients[9]. Chronic Hepatitis C account for an estimated 40-60% of the Chronic Liver Disease and is the 10th leading cause death in the United States[10]. Hepatitis C contributes 30% to cause Chronic Liver Disease[11]. No authentic study on the frequency Hepatitis C in the patients of Chronic Liver Disease has been done in Balochistan. So this study was carried out to bring in to light the real picture of Chronic Hepatitis C in Chronic Liver Disease and provide a base for further studies.

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PATIENTS AND METHODS

This study was conducted in the "National Program for Prevention and Control of Hepatitis" and in the Department of Gastroenterology Bolan Medical Complex Hospital Quetta in the period from April 2008 to January 2009.105. HCV antibodies were detected by Elisa Third Generation in Aga khan Unversity Hospital central lab and shoukat khanum memorial hospital Lahore. A sample size of 1054 was calculated, using 5% level of significance margin of error as 5% and an expected frequency of 50%. who belonged to every walk of life in Balochistan In which 554(52.56%) were males and 500(47.43%) were females. The males and females ratio participated in this study was the same the majority of them were from the very poor socioeconomic group and lower middle Class. This is because the treatment was free in the National Program for Hepatitis, and the investigations were funded from the Government Zakat fund.

RESULTS

Total No of 1054 patients were included in this study.223 (21.15%) of the patients were HCV positive and 831(78.85%) were negative for HCV antibodies as shown in table 1

Table 1: HCV antibodies serofrequency in Balochistan.

No of patients	HCV +ve	HCV –ve
1054	223(21.5%)	831(78.85%)
Males 554(52.56%)	128(23.1%)	426(76.89%)
Females 500(47.43%)	95(19%)	405(81%)

Table 2: HCV serofrequency By Gender 223.

Gender	Number	Percentage
Males	128	56.14
Females	95	42.60

The No of male patients participated were 554(52/56%) and female patients were 500(46/43%). The total No of male patients positive for HCV antibodies were 128 (23, 1%), and the male patients Negative for HCV antibodies were 426(76.89%). The total No of female patients positive HCV antibodies were 95(19%), and female patients negative HCV antibodies were 405(81%).

The total No of male patients who approached the facility were slightly higher than the female patients, but the percentage of female patients positive for HCV antibodies was lower than the male patients. The Majority of the patients had no idea about the causative factors, preventing measures, treatment and complications, Which Indicates a very pathetic situation of hepatitis patients in Balochistan, and shows the over all awareness of the population about fatal viral infection.

DISCUSSION

Chronic Hepatitis C accounts for 40-60% of the Chronic Liver Disease patients and is the 10th leading cause of death in the united states12. Hepatitis C is a major cause of Hepatocellularcarcinoma (HCC) and accounts for approximately 27%of all HCC in the United States.13.InAsia it has been observed, that the HCV frequency increases with age[14, 5]. Infection with Hepatitis C is a leading cause of Chronic Liver Disease that represents a significant health problem[16]. A significant proportion of viruses escape the Host antiviral response and develop a chronic infection which can result in progressive Liver Disease such as cirrhosis and Hepatocellular Carcinoma[17]. In most resource rich countries significant number of persons has acquired HCV infection in the late 1970s and 1980s before the identification of the virus, and the availability of the Diagnostic tests[18]. Chronic HCV infection is largely asymptomatic, persistent infection may take many years to cause symptoms and it takes 20-30 years significantly leading to Chronic Liver Disease[19].

The frequency Hepatitis C virus infection in the General Population of the United States has been estimated based on NHANES III was 1.8% which corresponds to approximately 3.9 million Americans who have been infected with HCV ,of these approximately 70% or 2.7 million had evidence of chronic infection as evident by HCV RNA in the Serum.20.The Arm Strong et al estimated that the frequency of HCV in the United States peaked in the mid 1990s at slightly above 2.0% and expected slight decline to 1.0% in 2030.There is a projected 4 fold increase in the number of persons with long standing infection (more than two decades) between 1990 and 2015.

Risk factors for Hepatitis C are largely related to Pare The Majority of the patients had no idea about the causative factors, preventing measures, treatment and complications, Which Indicates a very pathetic situation of hepatitis patients in Balochistan, and shows the over all awareness of the population about fatal viral infection.

Intravenous Drugs use is the most common risk factor accounting for 60% of cases. Transfusions prior to 1990 account for 10% of the patients, Haemodialysis patients and health care workers comprise less than 5%, and sexual transmission is the only risk factor in 15%.The Risk of Perinatal transmission is much lower with Hepatitis C (6%) and in the Hepatitis B is 20-60%.Intranasal cocaine, tattooing Acupuncture have been identified as an

independent risk factor in the same population.

The economic burden of Hepatitis C is in large part related to complications of Cirrhosis and HCC. The hospital care of the HCV related Liver Diseases represents a large proportion of the expenditure, although Hospitalization is relatively rare among the people with HCV infection. The other Item that accounted for a large proportion of expenditure of Out Patient Service including antiviral therapy e.g. No of physician's office visits in Out Patient Department, Prescriptions and over the counter medications is the single largest Item in Out Patient visits of Hepatitis C. The combination of Interferon and Ribavirin cost reaches in Billion for the treatment of Hepatitis C, which will break the back bone of our fragile economy. This point is encouraging that the frequency of Hepatitis C is low in the patients of Chronic Liver Disease in Balochistan, as compared to the frequency shown in the National and International Studies.

As it is a fact that prevention is better than cure, so proper measures should be taken to prevent the HCV infection. As HCV has no vaccine, so prevention becomes more important than treatment in a poor country like ours. Following are the steps that should be taken to prevent the HCV infection.

1. Mass Education by the Media and Doctors to educate the people about the nature , causes and complications of this disease
2. Proper use of the disposable, sterilized surgical instruments, Dental and Endoscopy instruments must be made sure.
3. Proper screening of the Blood and Blood products should be made compulsory in every level of Medical Facility.
4. In every Medical Centre there should be proper dumping of the Hospital wastes.
5. In barber shops change of razor should be made compulsory.

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