ORIGINAL ARTICLE

Frequency and Different Indications for Anti-HCV Screening

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ABSTRACT

Objective: To find out different indications for screening for anti-Hepatitis C virus (HCV)
Study design: It is non-interventional and observational study.
Subjects & methodology: This study was carried out at the Department of Pathology, Shaikh Zayed Hospital, Lahore between 1st January 2011 to 30th June 2011. One hundred and fifty cases from 15-70 years were selected and ELISA method is used for detection of anti-HCV.
Results: Ninety eight males and 52 females between 15 to 70 years were selected. The indications for screening for HCV infections were blood donation, hepatic encephalopathy, abdominal distension, malena, haematemesis, oedema on face or ankle joint, anorexia, weight loss, contact of patients with known hepatitis C infective persons, chronic skin infections, past history of I/V or I/M injections, I/V infusion I/V drug addiction, blood transfusion, shaving from barbers, dental procedures, sexual contacts or organ transplant
Conclusion: Screening for anti-HCV is beneficial for patients and their relatives.
Key words: Anti-Hepatitis C virus, Screening

INTRODUCTION

Hepatitis C virus (HCV) infection is endemic probably due to unsatisfactory hygiene, poor socioeconomic conditions and low literacy rate.[1] Viral hepatitis is a common public health problem in Pakistan.[2] Even in America, an estimated 3.9 million Americans are infected with HCV.[3] One hundred and seventy million people are infected with hepatitis C worldwide, out of which 70% have chronic hepatitis and 15 to 20% develop cirrhosis and its consequences.[4] Hepatitis C virus is associated with clinically significant acute and chronic liver disease that may lead to hepatic cirrhosis. Post-hepatitis B and C with its complications result in high mortality and have high association with hepatocellular carcinoma[5]. It is hoped that awareness about HCV infection will be soon[6]. Acute hepatitis C is clinically silent in most of the infected persons[7].

Hepatitis C virus is a single stranded RNA virus belonging to Flaviviridae family. Hepatitis C virus genome exhibits substantial heterogenecity, which is the result of mutation that occurs during viral replication. Hepatitis C virus infection can present in various ways i.e., acute hepatitis, chronic hepatitis, cirrhosis, hepatocellular, carcinoma, dermatological or neuropsychiatric complications[8-10].

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Chances of development of hepatitis C is seen in blood transfusion patients[11]. Sexual transmission of HCV is also observed in some cases[12]. There are different methods for diagnosis and monitoring of hepatitis C patients[13].

There is no protection against reinfection with the same or different genotypes of virus that is why there is no effective pre or post exposure prophylaxis. Hepatitis C viral load is not predictive of long-term disease. The viral load also does not correlate with the disease severity[14]. No clinical features of the acute disease or risk factors for infection have been found to be predictive of chronicity. Certain factors are considered important for disease severity like age above 40 years, male gender and ingestion of alcohol. Number of HCV infected patients is increasing[15]. So attention should be paid for early diagnosis and management of the infected cases.

MATERIAL AND METHODS

It is a non-interventional study. One hundred and fifty cases from 15-70 years with ELISA proved infected persons were selected coming in Medical Outpatient Department of Shaikh Zayed Hospital, Lahore from 1st January 2011 to 30th June, 2011. Only newly diagnosed patients were selected. Known HCV infected patients were not included in this study. A detailed history was taken regarding occupation, I/V infections, I/V infusions, blood transfusion, nasal spray, contact with known hepatitis C patients, marital status, sex history, use of alcohol, HIV or hepatitis B infections. History was also taken

regarding dental procedures, shaving from barbers, organ transplant, haemodialysis or accidental injuries.

RESULTS

One hundred and fifty cases, 98 males and 52 females were evaluated, aged between 15 to 70 years. Sex distribution is given in Table 1. The patients were screened for HCV infections and jaundice, blood donation, hepatic encephalopathy, abdominal distension, malena, haematemesis, oedema on face or ankle joint, anorexia, weight loss, contact of patients with known hepatitis C infective persons, chronic skin infections, past history of I/V or I/M injections, I/V infusion or I/V drug addiction, blood transfusion, shaving from barbers, dental procedures, sexual contacts, organ transplants, accidental injuries or patients on haemodialysis were also noted. The detail of indications for screening for HCV infections is given in Table 2.

Table 1: Sex distribution

Sex	No.	%age
Male	98	65.3
Female	52	34.7
Male to female ratio	1.8:1	

Table 2: Indications for screening for HCV infection

Indications	No.	%age
Before blood donation	28	18.7
Jaundice	24	16.0
Hepatic encephalopathy	20	13.3
Abdominal distension	18	12.0
Haematemesis	16	10.7
Chronic skin infections	14	9.3
Malena	12	8.0
Oedema on face	6	4.0
Oedema on ankle joint	6	4.0
Contact of persons with known hepatitis C infective persons	4	2.7
Unexplained anorexia & weight loss	2	1.3

DISCUSSION

At the moment HCV screening is inadequate. An enzyme immunoassay is the initial serological test for HCV and a positive result should always be confirmed by a more specific test like RIBA/PCR. Advice and counseling reduces risk of transmitting HCV to others. The confidentiality of patients test result should be protected because a positive result can cause considerable anxiety.[14] Before making guidelines for screening for anti HCV, we should be clear about the transmission of virus from patient to others. Hepatitis C virus is a blood born virus so it is most efficiently transmitted through large or repeated exposure to blood.[12] Body piercing and tattooing have also become risk factors. Intra-nasal transmission of HCV is possible. Hepatitis C virus is transmitted sexually.[13] Sex with more than one partner or who practice anal intercourse or sex with a partner known to have HCV are source of infection. People should avoid in sharing razors, blades and tooth brushes. Routine testing of pregnant females for anti HCV is not recommended because no measures are available to prevent transmission of HCV. Transmission of HCV infection through breast milk has not been documented.

Several psychiatric disorders are commonly found among HCV infected patients. The most common are depressive disorders, psychosis, anxiety and post traumatic stress. The Psychiatrists should screen the patient for anti-HCV.[11] Seventy to eighty percent have detectable HCV at clinical presentation. Ninety percent of patients have anti HCV positive by twelve weeks after onset. Therefore anti HCV testing should be repeated if acute hepatitis is suspected and the initial result is negative. Certain skin diseases like pruritus, oral lichen planus, alopecia areata, urticaria may be due to chronic hepatitis C infection showing importance of liver examination and anti-HCV screening[9].

We recommend routine screening for anti HCV in following situations:

- Patients having jaundice
- Patients going for blood donations
- Patients having hepatic encephalopathy
- Patients having abdominal distension
- Patients having haematemesis or malena
- Patients having chronic skin infection
- Persons using illegal drugs
- Patients on haemodialysis
- Patients on organ transplant
- Health care workers having infectious exposure
- Children having HCV positive mothers
- Persons having close contact with HCV positive individuals

CONCLUSION

Screening for anti HCV is beneficial for patients and their relatives to prevent transmission of this dangerous disease.

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