

Frequency of Hepatitis C in admitted patients of Department of Obstetrics & Gynaecology, Ghurki Trust Teaching Hospital, Lahore

A AKHTAR W TALIB N SHAMI SANWAR

Department of Obstetrics & Gynaecology, Lahore Medical & Dental College, Lahore.

Correspondence to Dr. Ambreen Akhtar, Assistant Professor, 58 J, Gulberg III, Lahore Mob: 0300-8418771

Objective: To assess the frequency of hepatitis C in admitted patients of department of obstetrics and gynaecology Ghurki trust teaching hospital, Lahore. **Design:** Descriptive study **Place and duration of study:** This study was conducted on patients admitted in obstetrics and gynaecology ward Ghurki trust teaching hospital, Lahore from 1st January 2005 to 31st December 2005. **Patients and methods:** A total of 1569 patients of age between 20 to 70 years were admitted in obstetrics and gynaecology ward Ghurki trust teaching hospital, Lahore and were screened for anti-HCV antibodies by 3rd generation ELISA. All positive patients were asked about previous history of jaundice, surgery, blood transfusion, multiple injections and dental procedures. **Results:** Out of 1569 patients 107 were found to be anti-HCV positive. Mean age of patients was 34.5 years. Frequency of anti-HCV was maximum (38.3%) in 31-40 years age group and in gynaecology patients (12.5%). Previous history of multiple injections and dai handling were the most commonly associated factors. Co-existent hepatitis B and C was found in only 2 (1.8%) patients. **Conclusion:** Hepatitis C is becoming an alarmingly common problem in the area of Ghurki Trust Teaching Hospital, Lahore. Its modes of transmission need to be properly evaluated for its control and prevention.

Key words: Hepatitis C, Anti-HCV anti-bodies, Risk factors

Hepatitis C virus is a single stranded RNA virus with properties similar to those of flavi-virus. It was first identified in 1988¹. The virus is chiefly contracted through parenteral exposure by factors like blood transfusion, body piercing and hemodialysis.² The risk of sexual and maternal to neonatal transmission is low and is seen in patients with high circulating levels of HCV RNA. Having multiple sexual partners may increase the risk of HCV infection. Transmission via breast milk has not been documented. In many cases the source of infection is unknown. The incubation period averages 6 to 7 weeks and clinical illness is often mild and usually asymptomatic. HCV is considered to be the main etiological factor for chronic liver disease and accounts for 70-75% cases of chronic hepatitis and 15-20% cases of cirrhosis and hepatocellular carcinoma.^{3, 4, 5} WHO estimates that about 170 million people that is 3% of the world's population are infected with HCV and are at increased risk of developing liver cirrhosis and liver cancer.^{6, 7, 8} A prevalence rate of 0.5 to 29 % has been found in the population samples around the world.⁹ The prevalence of anti HCV antibodies in blood donors has been reported to be 5.1% from India¹⁰ and 1.5% from Saudi Arabia.¹¹ Whereas in Pakistan it has been reported from 0.5 to 25.7%.¹² The aim of the study was to assess the frequency of hepatitis C in patients admitted in gynaecology department, in order to assess the magnitude of the problem so that measures can be devised to prevent the spread of this disease.

Place and duration of study:

The study was conducted in the department of obstetrics and gynaecology unit 1 Ghurki trust teaching hospital. A total of 1569 patients were admitted in the gynaecology department with various complaints in the year 2005 and all of them were included in the study. Almost all of the

patients did not have any specific symptoms relating to hepatitis C virus infection and were routinely subjected to screening for the presence of anti Hepatitis C virus antibodies. The samples were analysed by ELISA technique and all anti Hepatitis C virus positive patients were asked about previous history of jaundice, surgery, blood transfusion, multiple injections and dental procedures. Majority of the patients did not give any positive history of such exposure. All of them were evaluated for evidence of chronic liver disease by performing liver function tests, PT, APTT, along with a detailed abdominal ultrasound. In addition to Hepatitis C virus all patients were routinely screened for hepatitis B virus by performing hepatitis B surface antigen. All positive patients were thoroughly assessed for fitness for anaesthesia before subjecting them to any surgical procedure. All of them were offered Hepatitis C virus RNA detection by PCR technique for presence of active disease and referred to medical department for further management.

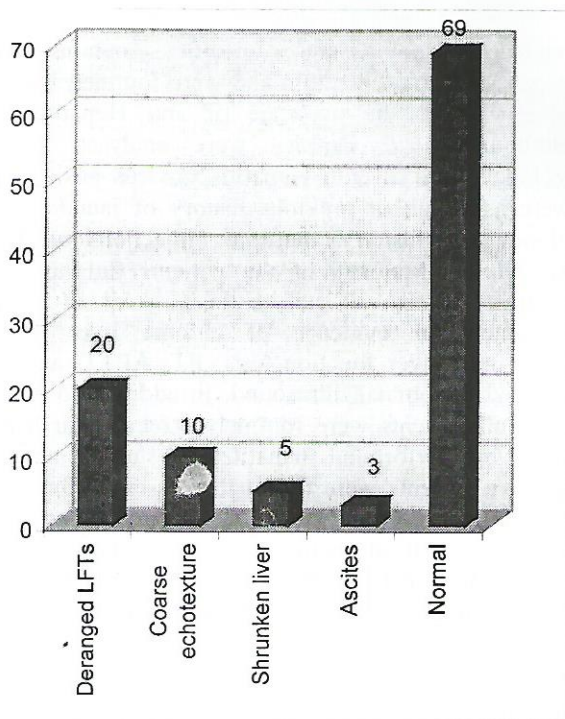
Results:

Of the total of 1569 patients, anti HCV was detected in 107(6.8%). The frequency was higher in gynaecological patients 68 (12.5%) as compared to obstetrical patients 39(3.7%). The frequency of anti HCV was maximum in age group of 31-40 years (38.3%) and declined sharply after age of 60 years (8.4%). Out of 107 anti HCV positive patients only 7 had history of previous surgery and 9 had history of blood transfusion while history of multiple injections (47) and dai handling in previous deliveries (31) were the most commonly associated factors. Only 5 and 18 patients gave the history of dental procedures and jaundice in the past respectively.

Deranged liver function tests were found in 20(18.7%) out of 107 anti HCV positive patients while only 15 (14%) had ultrasonic evidence of coarse echotexture (10) and shrunken liver (5). Only 3 (2.8%) were found to have mild ascites. 69 patients had no biochemical or ultrasonic derangements. 2 (1.8%) out of 107 anti HCV positive patients were also positive for hepatitis B surface antigen.

Age	Gynae	Obstet	Total	%age
21-30	5	16	21	19.6
31-40	21	20	41	38.3
41-50	14	3	17	15.8
51-60	19	0	19	17.7
61-70	9	0	9	8.4

	=n	HCV Positive	%age
Gynae	542	68	12.5
Obs	1027	39	3.7
Total	1569	107	6.8



Discussion

Hepatitis C is a very rapidly spreading disease in our community. Its mode of transmission needs to be researched more because known modes of transmission do not explain its high prevalence. It is the most common cause of chronic hepatitis, cirrhosis of liver and hepatocellular carcinoma world wide.⁸ It remains asymptomatic in most of its course. In this hospital based study hepatitis C was found in 12.5 % of patients admitted in gynaecology ward and only 3.7% in obstetrics ward. On average it was found in 6.8% of patients during year 2005.

Noor Mohammad et al found 4-5 % patients of hepatitis C virus in his hospital based study. Hashim et al¹³ in their study done on healthy blood donors in Faisalabad reported a rate of 20.89% of anti HCV positive cases. The prevalence of anti Hepatitis C virus in health workers was reported to be in the range of 4% by Rehman et al.¹⁴ Where as Alam and Khan et al¹⁵ reported 6.52% of healthy anti Hepatitis C virus positive blood donors of Sialkot. In Rawalpindi 5.9% of surgical patients were found to be Hepatitis C virus positive by Gondal et al.¹⁶ The study of Gondal et al coincides with our data. Tariq et al¹⁷ have reported a very high prevalence of Hepatitis C virus in Rawalpindi 25.7%.

Where as Bhopal et al¹² have reported a prevalence of 16.31% of the general surgical patients in Lahore. The high prevalence of the disease in the studies of Tariq and Bhopal et al were probably because samples were taken from the high risk people. As far as international figures are concerned only a few community based studies of Hepatitis C virus prevalence are available which are from countries of Europe and America.^{18, 19} Hayashmi J²⁰ reported 19.71% anti HCV prevalence in a rural area of Japan.

Conclusion:

Hepatitis C is becoming a very serious health problem in the area of Ghurki Trust Teaching Hospital, Lahore. Its modes of transmission need to be properly evaluated for its control and prevention. It is essential to know about the frequency of this disease in order to assess the magnitude of the problem. Its prevalence is difficult to come by because it is asymptomatic in its early stages and produces symptoms only when the disease is well advanced, at a time when no treatment is possible. As vaccine against it is not yet available and antiviral therapy is very expensive and most of the people can not afford it, hence prevention is the only way to limit its spread and this can be achieved by increasing awareness among the general public by health education. Practices like shaving and circumcision by barbers, tattooing, ear piercing, use of reusable syringes and reuse of disposable syringes should be discouraged.

References

1. Bonkovsky HL, Mehta S. Hepatitis C: a review and update. *J Am Acad Dermatol* 2001; 44:159-79.
2. Gul A, Iqbal F. Prevalence of hepatitis C in patients as maintenance haemodialysis. *J Coll Physicians Surg Pak* 2003; 13: 15-8.
3. Armstrog GL, Alter MJ, Mc-Quillan GM, Margolis HS. The past incidence of hepatitis C virus infection: implications for the future burdens of chronic liver disease in United States: *Hepatology* 2000; 31: 777-82.
4. Sultans N, Bari A, Qazalbash AA. Prevalence of anti-HCV antibodies in patients with liver disease and normal populations. *Pak J Med Res* 1999; 38: 106-11.
5. Naoumov NU, Chokshi S, Metivier E, Maertens G, Johnson PJ, Walliam R. Hepatitis C virus infection in the

- development of hepatocellular carcinoma in cirrhosis. *J Hepatol* 1997; 27: 331-6.
6. EASL Jury: East International Consensus Conference on hepatitis B. *J Hepatol* 2003; 38: 533 [PMID: 12663250]
 7. Yen T et al. The epidemiology of hepatitis C virus infection. *J Clin Gastroenterol* 2003; 36: 47 [PMID: 12488709].
 8. Umer M, Bushra HT, Shuaib A, Anwar A, Shah NH. Spectrum of chronic liver disease due to hepatitis C virus infections. *J Coll Physicians Surg Pak* 2000; 10: 380-3.
 9. Weekly epidemiological record No. 49, WHO 1999.
 10. Choudhary N, Ramesh V, Saras-Wat S, Naik S. Effectiveness of mandatory transmissible diseases screening of blood donors in India. *Indian J Med Res* 1995; 101: 229.
 11. Bernvilss, Andrews VJ, Kariem AA. Hepatitis C anti-bodies in a Saudi Arabia blood donors population. *Ann Saudi Med* 1997; 11: 563-7.
 12. Bhopal FG, Yousaf A, Taj MN. Frequency of hepatitis B and C in surgical patients in Rawalpindi General Hospital. *Prof Med J* 1999; 6: 502-9.
 13. Hashami ZY, Chaudhry A, Ahmad M, Ashraf M. Healthy voluntary blood donors; incidence of anti-HCV anti-bodies. *Prof Med J* 1999; 6: 551-5.
 14. Rehman K, Khan AA, Haider Z, Shahzad A, Iqbal J, Khan RU, et al. Prevalence of sero markers of HBV and HCV in health care personnel and apparently healthy blood donors; *J Pak Med Assoc* 1996; 46: 152-4.
 15. Alam M, Khan DA. Prevalence of anti-bodies to hepatitis C in blood donors in Sialkot (editorial). *J Coll Physicians Surg Pak* 2001; 11: 783-6.
 16. Gonadal SH, Jawad S, Bhutta AR. Incidence of anti-HCV positive cases in 300 consecutive non-selected patients in general surgical ward. *Pak Postgrad Med J* 1999; 9: 33-4.
 17. Tariq W, Hussain AB, Karamat KA, Chani E, Hussain T, Hussain S. Demographic aspects of hepatitis C in northern Pakistan. *J Pak Med Assoc* 1999; 49: 198-201.
 18. Alter MJ, Kruszon-Moran D, Nainan OV, Mc Quillan GM, Gao F, Moyer LA, et al. Prevalence of hepatitis C virus infection in the United State: 1998 through 1994. *N Engl J Med* 1999; 34: 556-62.
 19. Habib M, Muhammad MK, Aziz FK, Megder LS, Hamid MA, Gamil F, et al. Hepatitis C virus infection in a community in the Nile Delta: risk factors for sero positivity. *Hepatology* 2001; 33: 248-53.
 20. Hayashmi J, Kishiharar Y, Yamaji K, Yoshimura E, Kawakami Y, Akazawa K, et al. Transmission of hepatitis C virus by health care workers in a rural area of Japan. *Am J Gastroenterol* 1995; 90: 794-9.