ORIGINAL ARTICLE

Disease Stage and Source of Infection in Newly Diagnosed HCV Related Cirrhotic Patients in Tertiary Care Hospital

KHALID MAHMUD KHAN, RASHID IQBAL, TALAT NAHEED, MOHAMMED NAEEM
Department of Medicine, Fatima Jinnah Medical College, Sir Ganga Ram Hospital, Lahore

ABSTRACT

To note disease stage (Compensated, Decompensated) and source of infection in newly diagnosed Hepatitis C virus (HCV) related cirrhosis patients.

Design: Cross sectional observational study.

Place and duration of study: The study was carried out at Tertiary care hospital (Sir Ganga Ram Hospital Lahore) between Jan 2008 to Dec 2011

Patients and methods: Anti HCV antibody positive patients diagnosed cirrhotic patients who had come to know about first time ever diagnosed cirrhosis were included. Cirrhosis was diagnosed on clinical and ultrasonographic basis. Liver Biopsy was also used for the same purpose wherever possible or where consent was available. Each patient underwent detailed clinical history, laboratory, imaging, and endoscopic evaluation wherever required to note disease stage, main complaints and source of infection. Data was recorded on a prescribed Performa and analyzed as per aims and objectives of the study using SPSS.

Results: Among 208 patients, 87% patients presented with decompensated cirrhosis. Abdominal distension (53.36 %), GI bleed with abdominal distension (16.82%), Haemetemesis / Melaena without any evidence of ascites (7.21 %), and Portosystemic encephalopathy was noted for (19.23%) patients and hepatoma was found in (2.40%), were commonest presenting complaints. Major possible source acquiring HCV infection included; exposé to non disposable razors and blade by barbers and beauticians in 66 patients (31.73%), history of use of multiple / unsafe injections in 45 patients (21.63%), surgical and dental procedures in 42 patients (20.19%) and H/O blood transfusion were in 32 patients (15.38%), Anti HCV +ve spouse in 8 patients (3.84%) and no cause was found in 15 patients (7.21%).

Conclusion: Most of newly diagnosed HCV related cirrhotic have decompensated disease .Hematemesis/Melaena and abdominal distension been major presenting complains, while exposure to non disposable razors and blades or barber are most frequent source of infection in these patients.

Key words: Hepatitis C virus, Cirrhosis, HCV, haemetemesis, melaena, abdominal distension.

INTRODUCTION

Hepatitis C virus is the most common cause of chronic liver disease, cirrhosis and liver cancer world over and is associated with significant morbidity and mortality. There are an estimated 170 million people worldwide infected with HCV this is approximately 3% of the entire human population on the planet three to four million people are newly infected each year[1]. In Pakistan; it is also emerging as a major health problem. The financial implications of this disease on our already over burdened health care are enormous.

Prevalence of HCV infection in most of the countries varies between 1- 4.9% [1] while the prevalence in Pakistan is 4-7% [2]. some In our country many of the patients of Hepatitis C virus present for the first time when advanced cirrhosis has already developed, HCV infection lead to chronic liver disease in 60% of the patients, leading to liver cirrhosis in 10-20 years [3].

Risk factors associated with the spread of HCV are History of unsafe parental and non parental injections , exposure to non disposable razors ,blades and non sterilized instruments of barbers and beauticians, any surgery, any dental procedure, history of close contact with HCV patient, blood transfusion, Anti HCV +ve spouse.[4-5]

As no data is available on how patients of HCV related cirrhosis present for the first time and how advanced in their disease upon this initial diagnosis we tried to document these facts in our study. This study was mainly performed to note stage: Compensated, Decompensated in HCV related cirrhotic patients presenting for the first time & the possible source of acquiring HCV infection in these patients.

MATERIALS & METHODS

This cross sectional observational study was carried out at Sir Ganga Ram Hospital Lahore between Jan 2008 and Dec 2011. 208 anti-HCV antibody positive patients with first time ever diagnosed on clinical and ultrasonographic basis. Liver biopsy was also used for same purpose wherever possible and or where consent was available patient . Alcoholic and hepatitis B patients were excluded.

Physical signs related to cirrhosis were looked for and related investigation were done like LFTs, Serum Albumin, PT, upper GI endoscopy. Abdominal USG, Ascitic fluid analysis, Alpha fetoprotein and CT Abdomen were performed where ever indicated. Composite diagnosis was made in each patient to determine how many patients present without decompensation and how many present for the first time when already there disease has decompensated.

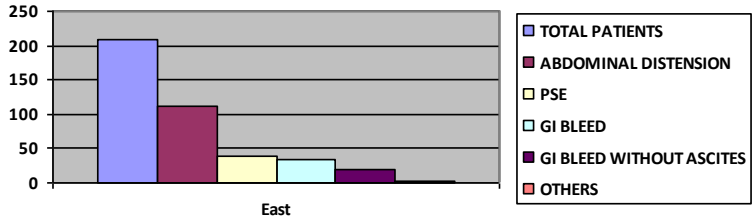
RESULTS

Of the 208 patients 120 were male and 88were female. Mean age of males was 55.1 year (range 36~75).Mean age of females was 52.3 years (range 30-70).

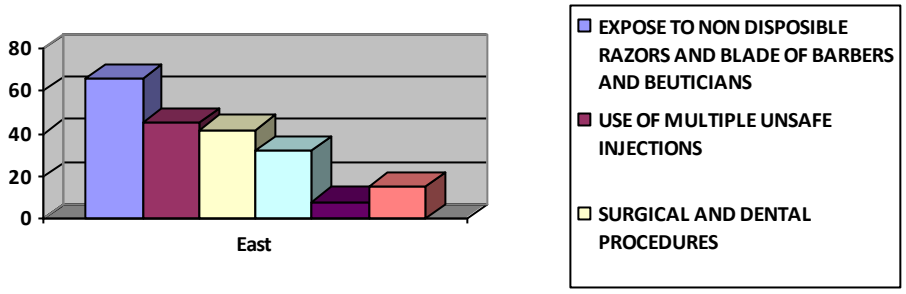
Majority 87% of our patients had decompensated cirrhosis. Abdominal distension, Variceal bleed. ,drowsiness / altered behavior were commonest presenting complaints among patients who admitted with decompensated liver disease. 5 patients were diagnosed to be having hepatoma (2.40%) on their initial presentation; 3of hepatoma patients had compensated cirrhosis, 2/5 had decompensated Cirrhosis. 13% patients did not have any complains but were diagnosed on the basis of there finding on routine clinical examination. Main complains on basis of which they presented and latter on were diagnosed for the first time as having HCV related cirrhosis are shown in table 1.

Major possible source acquiring HCV infection included; exposé to non disposable razors and blade by barbers and beauticians in 66 patients (31.73%), history of use of multiple / unsafe injections in 45 patients (21.63%), surgical and dental procedures in 42 patients (20.19%) and H/O blood transfusion were in 32 patients (15.38%), Anti HCV +ve spouse in 8 patients (3.84%) and no cause was found in 15 patients (7.21%). Possible risk factors for acquiring HCV infection in study are shown in graph 2.

Table 1: Main Presenting Complaints



Graph 2: Posible Risk Factors for Acquiring HCV Infection



DISCUSSION

Abdominal distension, Variceal bleed. Drowsiness/altered behavior were commonest presenting complaints among patients who admitted with decompensated liver disease in our patients, 5 patients were diagnosed to be having

hepatoma (2.40%) on their initial presentation 3 of that have compensated cirrhosis, the rest had decompensated Cirrhosis. Majority 87% of our patients had decompensated cirrhosis. Generally 20 to 30 years are taken by hepatitis C virus to produce cirrhosis and its related complications[6] .

13% patients did not have any complains but were diagnosed on the basis of there finding on routine clinical examination. Our patients do had Hepatitis C related liver diseases for longer time and remained undiagnosed and asymptomatic. This point to the poor health and poor health education which could help in identifying and treating these patients during early course of there chronic HCV infection.

Studies suggest that risk factors for HCV infection in this part of world differ from those of Europe and united State of America. Having shaves from the barbers shop or street barbers in villages or in some main cities, excessive visit of beauty parlors and other unsafe method of makeup like using unsterilized instruments for hair cutting, plucking ,for waxing with re-use of cloth and pester. Similarly using same lipsticks and other makeup kits also has been identified as a major risk factor in transmission of HCV virus[7].

Similarly unnecessary use of parenteral and non parenteral unsafe injections / re-use of syringes, are the risk factors for HCV infection in this region[8,9]. It also found that patients also have more than one risk factor. In one Pakistani study it was noted that 81% patient had history of more than 10 injections per years as the main source of HCV transmission[8].

Surgical procedure is also contributing factor in infection of HCV virus it also has been seen in a number of studies across the world[5]. History of dental procedures was also found significant in our study which was also noted by others as well[5].

Blood transfusion is also a risk factor for the spread of HCV infection which was also seen by Ahmetagic et al,[11] Hand et al [12] ,and Chiaramonte et al.[5]

CONCLUSION

Majority of our patients of HCV related cirrhosis is diagnosed for the first time with decompensated disease. Common source of acquiring HCV infection were exposure to non disposable razors and blade of barbers in saloons and road side barbers especially in villages and some main cities of country. Unsafe parenteral and non parenteral injections was the second commonest source of infection.

REFRENCES

1. Steven K Herrine, David s Weinberg. Epidemiology of Hepatitis C viral Infection. Infect Med 1999; 16:111-117.
2. 38th EASL, The European Association for the study of Liver, July 2003.
3. National Institute of Health Consensus Development Conference Statement: Management of Hepatitis C June 10-12, 2002.Hepatology 2002; 36:S1 – S_{20}
4. Villano SA ,Vlanov D, Nelson KE, lyles CM, Cohn S, Thomas DL. Incidence and risk factors for Hepatitis C Injection, Maryland .J Clin Microbial 1997;35:3274-7.
5. Karaca C, Cakaloglu Y, Demir K Ozdil S, Kaymakoglu S, Badur S et al. Risk Factors for transmission of hepatitis C virus infection in Turkish population, Dig Dis Sci2006;51:365-9.
6. Georg M Lauer ,Bruce D Walker. Hepatitis C virus infection . NEJM 2001:345:41-52.
7. Bari A , Akhtar S, Rahbar MH , Luby SP. Risk factors for hepatitis C virus infection in Rawalpindi Islamabad, Pakistan, Trop Med Health 2001;6:732-8
8. Umer M , Bushra HT , Younus N, Bashir N. clinical spectrum of chronic liver disease due to HBV,HCV and dual infection. A comparative study. Pak Gastroenterol 1999; 13:1-2.
9. Jafri W, Jafri N, Yakoob J, Islam M, Tirmizi SF, Jafar T, et al. Hepatitis B and C: prevalence and risk Factors associated with seropositive in Karachi Pakistan. BMC infect Dis 2006;6:101.
10. M. Sheraz Akbar , M.Khalid, Najma Ayub , M javed.Seroprevalence and risk factors of Hepatitis C In Mardan, NWFP:A hospital based study. Rawal Med J 2004;29:57-60
11. Ahmetagic S, Muminhodzic K, Cickusic E,Stojic V, Petrovic J, Tihic N, Hepatitis C infection in risk groups. bosn J Basic Med sci.2006;6(4):13-7.
12. Hand WL,Vasquez Y. Risk factors for hepatitis C on the texas-mexico border. Am J Gastroenterol.2005;100(10):2180-5.