

ORIGINAL

HEPATITIS B AND C SCREENING BEFORE SURGERY; ANALYSIS OF 142 CASES

Dr. Ishtiaq Ahmed Chaudhry, FCPS

Assistant Professor of Surgery
Foundation University Medical, Rawalpindi.

Dr. Humera Ayub, MBBs

Medical Officer
Foundation University Medical, Rawalpindi.

Dr. Sami Ullah, FCPS

Assistant Professor of Surgery
Foundation University Medical, Rawalpindi

ABSTRACT

Objectives: to find the incidence of Hepatitis B and C in cases undergoing elective surgery. **Study Design & Settings:** This was a prospective study, conducted at Surgical Unit-1 of Fauji Foundation Hospital, Rawalpindi. **Period:** six months, from January 2002 to June 2002. **Material & Methods:** A total of 142 consecutive patients undergoing elective surgery were screened for Hepatitis B and C. **Results:** Among them 11.26% were found Hepatitis C and 2.11% Hepatitis B positive. **Conclusion:** It is concluded that every case under going surgery should be screened for Hepatitis B and C.

Key Words: Hepatitis B, Hepatitis C, Screening, Surgery.

INTRODUCTION

Screening for Hepatitis B and C is routinely not done in majority of hospitals in Pakistan. It is usually done in patients with past history of jaundice or some liver disease. Precautions against it during surgical procedure in wards and in operation theaters are taken only when a known positive case is being operated. Unfortunately majority of the patients (more than 60%) do not present with jaundice and the carrier usually do not display the symptoms.

Surgical procedures in the ward or in the theater are the important mode of transmission of hepatitis B and C virus. Contaminated needles, surgical equipment, surgical disposables, blood transfusion and self pricks during procedures can be the cause transmission of virus from patient to patient and even to the doctors and paramedical staff and nurses. A large number of population in Pakistan is symptomatic carriers. Seroprevalance for HCV in Pakistan is from 0.7% to 20% as reported in different studies^{1,2} and for Hepatitis B is around 10%^{3,4}.

Keeping in view the high carrier rate, dreadful complications of hepatitis and its high infectivity, we in Pakistan cannot afford to operate on patients without hepatitis screening. This study was carried out to discover the incidence of hepatitis C in our surgical patients to get an idea about the number of the patients we are operating on them with out knowing that whether they are hepatitis B or C positive.

MATERIALS & METHODS

This study was carried out at surgical unit-1 of Fauji Foundation Hospital Rawalpindi, from January 2002 to June 2002. Fauji Foundation Hospital is more than 600 bedded tertiary care hospital which provides medical facilities to ex-service men, their families and civilian personnel's. It drains patients mostly from Azad Kashmir, Northern areas, NWFP and Southern Punjab. All admitted patients above the age of 20 years under going elective surgery were included in the study. Hepatitis BsAg and HCV anti bodies screening were carried out in

all patients to see the carrier status of the patients before surgery. All findings were recorded and analyzed at the end of the study.

RESULTS

A total number of 142 consecutive cases were studied during the study period. Majority of them were females (63.74%). Larger numbers of patients were in 4th, 5th and

6th decade of life in both sexes. After screening 11.26% patients were found to be HCV positive and majority of them were females (62.50%) with male to female ratio of 1:1.6. Majority of them belongs to 5th and 6th decade of life (31.25% respectively) in both sexes (Table-I). Only three cases of Hepatitis B (2.11%) were found during this study period. Among them one is male and remaining two are females.

Table-I. Incidence of Hepatitis C and B infection in different age groups

Age (yrs)	Cases Operated		Total	HCV+ve cases		Total	H B +ve Cases		Total
	Male	Female		Male	Female		Male	Female	
21-30	2	20	22 (15.49%)		1	1 (6.25%)			
31-40	6	21	27 (19.01%)		2	2 (12.50%)			
41-50	20	26	46 (32.39%)	2	3	5 (31.25%)	1	1	2 (66.67%)
51-60	14	18	32 (22.53%)	2	3	5 (31.25%)		1	1 (33.33%)
61-70	6	6	12 (8.45%)	2	1	3 (18.75%)			
> 70	3		3 (2.11%)						
Total	51 (36.2%)	90 (63.74%)	142	6 (37.5%)	10 (62.5%)	16 (11.26%)	1 (33.33%)	2 (66.67%)	3 (2.11%)

DISCUSSION

Hepatitis B and C is highly endemic in Pakistan and its incidence had increased within last decade^{3,4}. A large number of a symptomatic carriers is present in our country. The carrier rate of Hepatitis BsAg is quoted to be around 10%^{4,5} and seroprevalence of Anti HCV antibodies varies from 0.7% to 20% in different segments of Pakistani population^{1,2,6,7}. The prevalence of anti HCV antibodies in chronic liver disease has been reported to be between 20-75% in different studies⁸. In different studies carried out at different centers in Pakistan by Sheikh et al³, Malik et al⁵, Ahmed and his colleagues⁹ showed the carrier rate of HBsAg is ranging from 10-16%.

The commonest mode of HBV and HCV transmission is by the contaminated blood and its products, use of unsterile infected syringes, sharp surgical instruments and needles. Doctors and health care professionals are

at high risk of acquiring the Hepatitis B and C infection. Health professionals are exposed to this danger while handling the patients, during treatment and investigations procedures in ward, during surgery, renal dialysis and so on. In Operation theater accidental cuts and pricks to the surgeons or their assistants and spillage of blood drops in the eyes are the commonest modes of transmission to them. A study carried out by Mujeeb and his colleagues showed the prevalence of HBsAg in 7% of doctors, 17% among dentists and 20% in sweepers working in the hospitals¹⁰. On the other end there is a very little understanding of Hepatitis B and C infection and how to adopt the safety measures against it among the health care professionals and doctors¹¹.

In our study the incidence of HCV infection among patients undergoing operation is 11.26% as compared to Hepatitis B (2.11%), which is quite high and alarming. Its incidence is high in the females (62.50%) and more common in 5th and 6th decade of life in both sexes in our

study. In Pakistan like many other third world countries, more than 80% of deliveries are conducted by traditional birth attendants in unhygienic condition and without proper sterilization, which makes females more vulnerable to HCV and Hepatitis B. Other common causes of these infections among the patients are use of contaminated syringes, transfusion of contaminated blood and their products and surgery without proper sterilization. Surgeons and other health care professionals are more prone to get these infections while handling them in out patients department, casualty, wards and in Operation Theater. So certain guideline must be followed when dealing with the patients:

- (a) In elective cases HB and HCV screening should be done.
- (b) In Hepatitis B and C cases surgeons and health care professionals should protect themselves before handling these patients like protective mask, eye protection spectacles and use of double gloves etc.
- (c) During emergency surgery all protective measures should be adopted and carrier status should be checked as soon as possible.

In addition to that awareness regarding HB and HCV infection should be done among the peoples through electronic media, newspapers, workshops and awareness programmes on major scale. Government sectors and private sector should join hand to hand against this programme.

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