Original Article

Medicine

Incidence of Hepatitis A, B & C with Relation to Age, Sex, Occupation, Socio-Economic Status, & Urban or Rural Area of Hazara Division & District Sialkot

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ABSTRACT

Objective: To study the incidence of Hepatitis A,B & C with relation to age, sex, occupation, socio economic status, Medical & surgical treatment, Blade used for shaving & urban or Rural area of Hazara Division & District Sialkot.
Study Design: Original study
Place and Duration of Study: This study was conducted at Shaheena Jamil Teaching Hospital Abbotabad & Islam Teaching Hospital Sialkot from 1st January 2010 to 30th April 2013.
Materials and Methods: 300 cases of Hepatitis A,B & C were randomly selected from the patients attending to OPD & emergency of Shaheena Jamil Teaching Hospital Abbotabad &Islam Teaching Hospital Sialkot & their peripheral Districts.
Results: Results are shown in Table No. 1 to Table No. 9
Conclusion: The sanitary conditions of drinking water should be improve. The Medical & Paramedical Staff should take care against syringe needle prick, surgical knife cut & blood transfusion. In barber shop during hair cutting & clean shave the blade should be new one & not reused. The sexual contact should be restricted to the life partner. The Dental surgery is also one toll for Hepatitis spread.
The aggravating factors such as occupation & socio economic status, Medical & surgical treatment, blade used for shaving, surgical instruments, syringe, blood transfusion Dentistry instruments should be free of infection & sanitary conditions should be improved.
Key Words: Hepatitis Incidence, occupation, socio economic, Medical & surgical treatment blade used, Dentistry , syringe , blood transfusion &Urban or Rural.

INTRODUCTION

Hepatitis B and C is a global problem but it is rapidly spreading in developing countries due to lake of community health education, illiteracy and poverty. Majority of these patients are asymptomatic and pose great danger of spreading these infections to the society and medical personnel particularly.1Hepatitis C was first identified in 1983and 0.5-29% has been found in population sample around the world.2,3,4 It's prevalence is 5.1% in blood donors in India, 1.5% in Saudi Arabia, and 0.5 to 25.7% in Pakistan.5,6Both Hepatitis B and C are transmitted through blood either by percutaneous or body fluids (semen, saliva or vaginal secretion).7,8Both these infections present with malaise, anorexia, abdominal pain and jaundice but some time there are no symptoms till the development of cirrhosis, portal hypertension, oesophageal varieces, ascities, encephalopathy or liver malignancy.9,10 There is vaccine available for hepatitis B which is now incorporated in immunization schedule all over the world and it is expected that its incidence will decrease.10,11 Almost two billion people are infected with hepatitis B and more than 350 million have life long chronic liver infection.11.One hundred and seventy million people are infected with hepatitis C and 3 to 4 million people get infected each year.12 There is high risk of infections in patients who receive blood, undergo dental treatment, have unsterilised injections, skin tattooing, shave history of the face or arm pits by barbers or sexual abuse history.13,14.Hepatitis B virus circulates in high titres in blood and lower titres in other body fluids and is hundred times more infectious than HIV infections and ten times more than HCV.15.Prevalence of hepatitis B is 4 times higher in black as compared to whites (11.9% compare to 2.6%).16.Chances of surgeons contracting hepatitis B infections are 1%.17 It is important that all surgeons know there HBV and HCV profiles. As vaccination is available only against HBV, therefore, it should be given to those clinical staff and anaesthetist nurse, there is nosocomial spread of HCV and HBV.18 .In another study19 HCV transmission to anaesthetists through accidental exposure is 2% in the United States population. The objective of this study is to find out the

prevalence of Hepatitis B and C and their risk factors in patients admitted in Orthopaedic unit.

MATERIALS AND METHODS

Three Hundreds (300) cases of Hepatitis were randomly selected from patients attending to the OPD of Shaheena Jamil Teaching Hospital Abbotabad & Islam Teaching Hospital Sialkot. Shaheena Jamil Teaching Hospital gives cover to the patients coming from Hazara Division & even from Gilgit. The Islam Teaching Hospital drains the patients from Sialkot District &even also its peripheral districts.

RESULTS

As shown in Table No.1 maximum incidence of Hepatitis A, B & C was found in age group 31-40 years (33.33%) & minimum in age group 71-80 years (3.33%) The incidence of Hepatitis A, B & C was found double as compare to male (55% in female & 45% in male).The incidence of Hepatitis A, B & C was found maximum in factory workers & Laborers (23.33% in each group) & minimum in doctors (3.33%) as shown in Table No.3. The incidence of Hepatitis A, B & C was found maximum in Low socio-economic group (66.66%) & minimum in high socio-economic group (10%) as shown in Table No. 4. The incidence of Hepatitis A, B & C was found maximum in group of people who drink dirty water & take unhygienic food (66.66%) & half in group of people who drink clean water & take hygienic food (33.33%) as compare to people of poor & unhygienic dietary habits as shown in Table No.5.

Table No.1: Incidence of Hepatitis A, B & C with Relation to Age

Sr. No.	Age (years)	Cases	Percentage
01	10-20	30	10%
02	21-30	40	13.3%
03	31-40	100	33.3%
04	41-50	50	16.66%
05	51-60	50	16.66%
06	61-70	20	6.66%
07	71-80	10	3.33%
	Total	300	100%

Table No.2: Incidence of Hepatitis A, B & C with Relation to Sex

Sr. No.	sex	Cases	Percentage
01	Male	135	45%
02	Female	165	55%
	Total	300	100%

The incidence of Hepatitis A, B & C was found maximum in group of people who have taken infected blood transfusion (83.33%) & minimum in group of people who have taken non infected blood transfusion (16.66%) as shown in Table No.6. The incidence of Hepatitis A, B & C was found maximum in group of people who have taken injection by reused syringe (86.33%) & minimum in group of people who have taken injection by non reused syringe (13.66%) as shown in Table No.7. The incidence of Hepatitis A, B & C was found maximum in group of people who have shaved himself or by the barber by reused blade (87.66%) & minimum in group of people who have shaved himself or by barber by non reused blade (12.33%) as shown in Table NO. 8. The incidence of Hepatitis A, B & C was found maximum in type hepatitis C (72.33%) & minimum in type Hepatitis A (09%) as shown in Table No.9.

Table No.3: Incidence of Hepatitis A, B & C with Relation to Occupation

Sr. No.	Occupation	Cases	Percentage
01	Students	40	13.33%
02	Factory Workers	70	23.33%
03	Laborer	70	23.33%
04	Office Servants	25	8.33%
05	Farmers	30	10%
06	Business Man	15	05%
07	House Wife	15	05%
08	Doctors	10	3.33%
09	Para Medical Staff	15	05%
10	Nurses	10	3.33%
	Total	300	100%

Table No.4: Incidence of Hepatitis A, B & C with Relation to socio-economic status

Sr. No.	socio-economic status	Cases (patients)	Percentage
1	Low	200	66.66%
2	Middle	70	23.33
3	High	30	10%
	Total	300	100%

Table No.5: Incidence of Hepatitis A, B & C with Relation to dietary habits

Sr. No.	Dietary habits	Cases (patients)	Percentage
1	Clean water & food	100	33.33%
2	Dirty water &food	200	66.66%
	Total	300	100%

Table No.6: Incidence of Hepatitis A, B & C with Relation to wrong blood Transfusion

Sr. No.	Blood Transfusion	Cases (patients)	%age
1	Infected blood Transfusion	250	83.33%
2	Blood Transfusion (non infected)	50	16.66%
	Total	300	100%

Table No.7: Incidence of Hepatitis A, B & C with Relation to reused of Syringe

Sr. No.	Syringe used	Cases (patients)	Percentage
1	Reused Syringe	259	86.33%
2	Non Reused syringe	41	13.66%
	Total	300	100%

Table No.8: Incidence of Hepatitis A, B & C with Relation to reused blade for shaving

Sr. No.	Blade used	Cases (patients)	Percentage
1	Reused blade	263	87.66%
2	Not reused blade	37	12.33%
	Total	300	100%

Table No.9: Incidence of Hepatitis A, B & C

Sr. No.	Types of Hepatitis	Cases (patients)	Percentage
1	A	27	09%
2	B	56	18.66%
3	C	217	72.33%
	Total	300	100%

DISCUSSION

It was found that incidence of Hepatitis A, B & C was maximum in age group 31-40 years (33.33%), It was seen that females are more victims of Hepatitis A, B & C (55%) as compared to male (45%), The factory workers & laborers were more victims of Hepatitis A,B & C (23.33%) as compared to other group of people. It was seen that the low socio-economic group of people were more victim of Hepatitis A, B & C (66.66%) as compare to high gentry. The incidence of Hepatitis A, B & C was much more (66.66%) in group of poor hygienic conditions as compare to group of good hygienic conditions (33.33%).It was also seen that the victims of Hepatitis A, B & C were much more (83.33%) in infected blood transfusion group as compare to non infected blood transfusion group (16.66%) The incidence of Hepatitis A, B & C was very high (86.33%) in group of people who have been given injection by reused syringe as compare to group of people in which injection was given by non reused syringe (13.66%). The incidence of Hepatitis A, B & C was very high in group of people who have shaved himself or by the barber by reused blade (87.66%) as compare to group of people who have been shaved himself or by barber by non reused blade (12.33%) The incidence of Hepatitis C was very high (72.33%) as compare to Hepatitis A (09%) & Hepatitis B (18.66%).

In the study of Men Jean shown that the chronic infection of Hepatitis B & HIV takes place due to homosexuality. Many researcher had shown that the reused syringe, blade, Dental & surgical instruments are also causative factors for Hepatitis A, B & C. The dirty water & poor hygienic conditions are also aggravating factors for increasing incidence of Hepatitis A, B & C. in developing countries & under developing countries of the world.

CONCLUSION

The sanitary conditions of drinking water should be improve. The Medical & Paramedical Staff should take care against syringe needle prick, surgical knife cut & blood transfusion. In barber shop during hair cutting & clean shave the blade should be new one & not reused. The sexual contact should be restricted to the life partner. The Dental surgery is also one toll for Hepatitis spread.

The aggravating factors such as occupation & socio economic status, Medical & surgical treatment, blade used for shaving, surgical instruments , syringe, blood transfusion Dentistry instruments should be free of infection & sanitary conditions should be improved.

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