Frequency of Hepatitis B and C in Children with Haemophilia

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ABSTRACT

Objective: Frequency determination of hepatitis B and C in children with haemophilia

Study Design: Cross Sectional Study

Place and Duration of Study: This study was carried out from August 2017 to February 2018 at the Paediatric Medicine Department, Children’s Hospital Lahore.

Materials and Methods: The group of children between the age of 6 months to 12 years was chosen and a written consent was also obtained from them. Pre-designed structure Performa was used for the collection of information. Blood was sent to laboratory for conducting test for hepatitis B&C. Test result and data of the patient was kept confidential. SPSS version 16 was used for analysing the data.

Results: it has been shown in the result of this study that mostly patients (54%) were aged between 37-72 month and all men. It has been also found that mostly patients are from the poor socio-economic status. Prevalence of hepatitis B was found in 4(4.4%) and prevalence of hepatitis C was found in 8(8.9%). Grouping by disease duration, age and economic status do not shown any considerable difference.

Conclusion: Hepatitis B and hepatitis C was found to be positive in 4.4% and 8.9% respectively of homophilic patients.

Key Words: Haemophilia, Hepatitis B, Hepatitis C.

INTRODUCTION

Haemophilia is an X connected genetic bleeding illness categorised by the dearth of element VIII(HA) or element IX (HB) and is also known as Christmas Disease. the haemophilia clinical manifestations link with the element VIII and IX level. Bleeding – secondary to surgery or trauma or spontaneous – may starts from any part of the body but the common parts of the body are joints (80%) and CNS bleeding is considered very serious site. Treating with the concentrated elements of VIII or IX relying on the kind of haemophilia though transfusion is required by some patients with complete body but there is massive development of haemorrhage. The treatment is provided to the haemophilia and other coagulopathies patients with multiple blood transfusion and not heated clotting elements which involves element 1VIII and IX and also has increased risk of catching hepatitis B&C and other infection.

MATERIALS AND METHODS

This was a Cross Sectional Study. This study was carried out at Paediatric Medicine Department, Children’s Hospital Lahore. The study was conducted over a period of 6 months from August 2017 to February 2018. The size of the sample was calculated to be 90 with 95% confidence interval, 6% margin of error and 8.9% expected percentage of hepatitis C in patients with haemophilia. The Sampling technique was non-probability consecutive sampling. All male and female children having haemophilia according to the definition between the age of 6 months to 12 years and had blood transfusion more than two units or clotting elements till they were screened were added. Children as per medical record have positive HbsAg or anti HCV before the transfusion commencement. The children were not included in the study who were born to mother having positive hepatitis B, children have history of haemodialysis or peritoneal dialysis and have undergone surgical intervention. SPSS version 16 was used for analysing the data. Qualitative data such as sex, economic status and percentage and frequency of patients having hepatitis B&C. qualitative date such as age, duration of illness was presented as mean±SD. The data was classified as age, sex, duration of illness, economic status. After classification there was application of chi-square test with value of p<0.05 as significant.

RESULTS

The current study is comprised of 90 patients out of which 54% patients are aged between 37-72 months whereas 46% patients are between the age of 6months to 3 years. Patients mean age was 39.40 with SD 7.38 months. The current study has been conducted on all male patients. With relation to the disease duration of the 52.2% patients is disease <30 months whereas the duration of disease of 47.7% patient is disease> 30. The mean disease duration of 32.50±2.65 months. with respect to the economic status, mostly 53.3% patients have low economic status. Patients 36% belongs to middle class and 11.1% belonged to high class. 8.9% of haemophilic patients have hepatitis C and 4.4% patients have hepatitis B, hepatitis B&C us not found in around 86% patient. When the data is classified as per patients’ age, duration of disease
and economics status will not show any notable difference. Value of p is more than 0.05.

DISCUSSION

Haemophilia is an X connected genetic bleeding illness categorised by the dearth of element VIII(HA) or element IX (HB). The occurrence of bleeding is secondary to surgery or trauma or spontaneous. Bleeding treatment in such like patients involve concentrated elements of VIII or IX relying on the type of haemophilia. Complete blood transfusion is required by some patients when there is massive development of haemorrhage.

It has been found that mostly patients i.e., 53.3% are from low socio-economic status. Prevalence of hepatitis B was found in 4(4.4%) and prevalence of hepatitis C was found in 8(8.9%). The results can be compared with the other researches. According to the study carried out in Iran by Shamsdin SA and his colleagues showing HbsAg and anti HCV prevalence in haemophilias 1.4% and 8.9% respectively. In other research carried out by Al-Hmeed WGA et al., the prevalence of hepatitis B and C was found 0.52% and 9.9% respectively among the patients of haemophilia. Likewise, results have also been found in the studies carried out in Sudan. In the current study 62 children of haemophilia were included and only one child was found with hepatitis B positive and 8 patients with hepatitis C.

The prevalence is based on the transfusion numbers. More need of blood transfusion enhances the hepatitis B&C chances. Similarly, the reason for having low prevalence of hepatitis B with respect to hepatitis C is the hepatitis B vaccination introduction. Haemophilia patient uses vaccination for hepatitis B therefore there is rare chances of catching hepatitis B, for hepatitis C there is no such vaccination is available therefore it has high prevalence.

CONCLUSION

Hepatitis B and hepatitis C was found to be positive in 4.4% and 8.9% respectively of homophilic patients.

REFERENCE: