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RESEARCH ARTICLE

AWARENESS IN HEPATITIS B PATIENTS- NEED OF THE HOUR

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Abstract

Introduction: Hepatitis B virus (HBV) has variable manifestations which include both hepatic as well as extrahepatic. It affects significant proportion of population worldwide and can cause acute hepatitis, chronic hepatitis, cirrhosis and hepatocellular carcinoma (HCC). There is limited data regarding awareness of HBV in patients who are suffering from it which is very essential for both prevention as well as cure of this deadly disease. Thus, more researches are required in this field, so that well planned steps can be taken to combat hepatitis B.

Aims and objectives: The aim was to study awareness about their disease in confirmed patients of Hepatitis B.

Materials & methods: This study was a prospective study done at PGIMS, Rohtak for eleven years duration i.e. 01.01.2014 to 31.12.2024, for determining awareness about hepatitis B in confirmed patients of hepatitis B. In eleven years, total 10,000 hepatitis B patients were enrolled which included 700 acute hepatitis B and 9300 belonged to chronic hepatitis B. Out of these 9300 patients of chronic hepatitis B, 6510 belonged to inactive carrier stage, 1860 belonged to chronic hepatitis active stage and 930 belonged to cirrhotic stage. Out of these 930 cirrhotic, 28 had developed hepatocellular carcinoma. All of these patients were evaluated on basis of detailed questionnaire regarding awareness about their HBV infection.

Results: Out of total pool of 10,000 patients, only 250 patients were having complete awareness about different aspects related to HBV infection. Forty patients, in addition to these 250 patients had partial knowledge about HBV.

Conclusion: There is huge lack of awareness regarding mode of transmission, spread of disease, precautions including vaccination and available treatment regarding their disease in hepatitis B patients which needs to be improved on urgent and priority basis.

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Introduction:-

HBV infection has assumed a place of significant health problem in developing country like India. There are certain hotspots in India of this deadly disease like Haryana, Punjab, Uttar Pradesh, Uttarakhand, North eastern states etc. In view of non-uniform distribution in India, Hepatitis B Surface Antigen (HbsAg) positivity varies between 2–4.7% [1,2]. In India, approximately 40 million people are chronically infected with Hepatitis B [3]. The major routes of transmission of Hepatitis B include vertical transmission, unsafe needle & sexual practices, repeated exposure to

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blood & blood products like who receive repeated transfusion of blood, are on maintenance haemodialysis, intravenous drug abusers, males having sex with male, female sex workers, sexual partners & care takers of HBV patient and prisoners. The clinical spectrum of Hepatitis B varies from inactive carrier stage in majority to chronic hepatitis, cirrhosis and hepatocellular carcinoma [4]. HBV has effective vaccine against it and same is given under universal immunization program in India for last nine years. Moreover, there is provision of vaccination for high-risk groups as mentioned before under National Viral Hepatitis Control Program (NVHCP). The vaccination drive against hepatitis B in newborns and high-risk group has shown positive outcome in many countries [5]. Hepatitis B is most commonly seen in people belonging to poor socio-economic status who are predominantly uneducated, belong to rural area and have limited accessibility to qualified health care practitioners. Thus, they have to rely on unqualified practitioners of their nearby areas which lead to their easy exposure to unsafe needle practices and percolation of false myths regarding HBV in them and family members. The awareness about the disease nature, its risk factors, ways to prevent etc. is must in patients, their family members and society at large but surprisingly it is least in majority of them. There are very limited studies which address the exact situation regarding awareness which is cornerstone of both prevention and treatment. Hence, this study was planned to address this important aspect of HBV infection.

Aim and Objectives:-

The aim was to study awareness about their disease in confirmed patients of Hepatitis B.

Materials and Methods:-

The present study was prospective one and conducted at PGIMS, Rohtak for eleven years i.e. 01.01.2014 to 31.12.2024, for determining awareness about hepatitis B in confirmed patients of hepatitis B. The prior consent was taken from the patients before including in the study. The detailed history and general physical and systemic examination were done in every patient and then blood samples were collected. The details of patients recorded included age, sex, geographical location, occupation, risk factors like blood transfusion, tattooing, surgery, injections or intravenous fluid requirement, intravenous drug abuse, history of jaundice in near ones and a detailed questionnaire about awareness regarding hepatitis B was filled which included different aspects related to hepatitis B, at the time of enrolment. All patients were subjected to routine tests like complete hemogram, blood sugar, serum electrolytes, thyroid & lipid profile, autoimmune profile, viral screen, liver & renal function test, INR, urine examination, ultrasonogram abdomen, Fibroscan and HbsAg test by Enzyme linked immunosorbent assay (ELISA) & HBV DNA quantitative test by Polymerase chain reaction technique (PCR) and only those patients who were confirmed on these two viral tests for having hepatitis B infection were included in the study. In eleven years, total 10,200 of hepatitis B were treated but 200 patients were below 18 yrs, hence were excluded from final analysis regarding awareness of HBV. Thus total 10,000 patients were finally enrolled which included 700 patients of acute hepatitis B and 9300 belonged to chronic hepatitis B. Out of these 9300 patients of chronic hepatitis B, 6510 belonged to inactive carrier stage, 1860 belonged to chronic hepatitis stage and 930 belonged to cirrhotic stage. Out of these 930 cirrhotic, 28 had developed hepatocellular carcinoma.

Analysis of data:

The data collected was analysed using SPSS (Statistical Package for Social Studies).

Observations and Results:-

On analysis of 10,000 proven patients infected with HBV, majority were male i.e. 7000 (70%) and females comprised of 3000 patients (30%). The maximum patients resided in rural area i.e. 7300 (73%) of the subjects came from rural areas in comparison to 2700 (27%) who lived in urban area. In these 10,000 patients, 8100 (81%) were married. The patient age group was from 18-82 yrs but predominance was seen in 18 to 50 years age i.e. 7300 (73%) patients. In 70 yrs-90 yrs age group, only 200 (2%) patients were found to be suffering from HBV infection.

Total Patients	Male	Female	Rural	Urban	Married
10,000 (100%)	7000 (70%)	3000 (30%)	7300 (73%)	2700 (27%)	8100 (81%)

Table 1:- Showing Epidemiological Distribution in Hepatitis B Patients.

Total Patients	18 yrs-30 yrs	31yrs-50 yrs	51 yrs-70 yrs	71 yrs-90 yrs
10,000 (100%)	2300 (23%)	5000 (50%)	2500 (25%)	200 (2%)

Table 2:- Showing Age Distribution in Hepatitis B Patients.

Total Patients	Acute Hepatitis B	Chronic Hepatitis B	Chronic Inactive Carrier	Chronic Active Stage	Cirrhotic Stage	Hepatocellular Carcinoma
10,000 (100%)	700 (7%)	9300 (93%)	6510 (65.10%)	1860 (18.60%)	930 (9.30%)	28 (0.28%)

Table 3:- Showing Clinical Distribution in Hepatitis B Patients.

QUESTIONNAIRE	Number of Patients who gave correct answer (n=10,000)
Hepatitis B spreads by blood	Correct answer- Yes, n=250
Hepatitis B spreads by water & food	Correct answer- No, n=250
Hepatitis B spreads by sexual route	Correct answer- Yes, n=280
Hepatitis B spreads by sharing utensils	Correct answer- No, n=260
Hepatitis B spreads by sharing toilets	Correct answer- No, n=250
Hepatitis B spreads by touch & clothes	Correct answer- No, n=250
Hepatitis B spreads from mother during pregnancy	Correct answer- No, n=290
Hepatitis B spreads by tattooing	Correct answer- No, n=250
Hepatitis B can be prevented by vaccine	Correct answer- No, n=250
Hepatitis B has treatment by drugs	Correct answer- No, n=250

Table 4:- Showing Clinical Distribution in Hepatitis B Patients. 1

Qualification & Job	Educated	Uneducated	Qualified Job (Govt or Private)	Housewife	Labourer
Patients with Hepatitis B awareness (n=250)	240 (96%)	10 (4%)	210 (84%)	30 (12%)	10 (4%)

Table 5:- Showing Qualification & Job profile in Hepatitis B Patients with awareness.

Awareness Level	Complete Awareness	Partial Awareness	Total Awareness Level
Total Patients	250 (2.5%)	40 (0.4%)	290 (2.9%)

Table 6:- Showing kind of awareness level in Hepatitis B Patients.

Out of total 10,000 patients enrolled in the study, 700 patients were of acute hepatitis B and 9300 belonged to chronic hepatitis B. Out of these 9300 patients of chronic hepatitis B, 6510 belonged to inactive carrier stage, 1860 belonged to chronic active stage and 930 belonged to cirrhotic stage. Out of these 930 cirrhotic, 28 had developed hepatocellular carcinoma. Out of total pool of 10,000 patients, only 250 patients were having awareness about different aspects related to different aspects of HBV infection. Moreover, in these 250 also, some patients had partial knowledge about this disease. Out of total pool of 10,000 patients, only 250 (2.5%), on evaluation by questionnaire, had complete awareness about different aspects of hepatitis B. Around 40 (0.4%) more patients, in addition to these 250 patients had partial knowledge regarding hepatitis B. It means, if we club together, then total 290 (2.9%) patients were having either complete or partial knowledge of awareness about hepatitis B. All 250 patients had awareness regarding modes of transmission, availability of drug as treatment and preventive vaccine for hepatitis B. Out of these 250 who had complete knowledge about hepatitis B, 240 (96%) were educated, 210 (84%) were in government or private job, 30 (12%) were housewife and 10 (4%) were labourer by occupation.

Discussion:-

Globally twenty-one countries share 80% load of HBV infection and includes sub-Saharan Africa (SSA), Asia and the Pacific [6] but screening for HBV in these areas is less [7,8]. The United Nations Sustainable Development Goals aims to eliminate viral hepatitis as a public health threat by the year 2030, thus more stress is being given for HBV infection [8]. The World Health Organization (WHO) targets to reduce hepatitis B infections by 90% and increase global vaccine coverage to 90% [9] for which health awareness is essential regarding hepatitis B prevention, screening, and vaccination [8]. The HBV infection behaves like tip of iceberg where 90% of patients are unaware about it, thus remain undiagnosed and in future can progress to cirrhosis, and HCC [10]. Moreover, people at risk are having deficient awareness regarding HBV infection, thus there is low coverage of HBV vaccine among these high-risk groups who are living in high prevalent areas [11,12]. In our study pool, there was overall male predominance of younger age group, belonging to rural background and were married. The majority patient belonged to chronic hepatitis inactive carrier stage. The awareness level in our patient group was very less of 2.5%-2.9% because majority were uneducated. The pool having awareness were educated in majority and were working in government or private job. Few patients having awareness despite being labourer or house wife was due to knowledge gained by hepatitis B treated patient in family or neighbourhood. In society, there are so many myths associated with hepatitis B which occur as hinderance in patient getting tested, coming on board for treatment and regular follow up, as it requires life-long follow-up in majority of cases. There are very sensitive issues involved with hepatitis B, including sexual relationship and transmission which can become detrimental for good bonding between couples. Even some patients face harassment by family members due to lack of awareness by not sharing of toilets, washing areas and even avoiding touch due to wrong fear of transmission of HBV which leads to separation among family members. Thus, there is strong need of complete awareness among patients, their family members and society at large for taming the menace of this deadly disease. For achieving it, combined efforts of health care professionals, non-governmental organization and government machinery are required.

Conclusion:-

There is strong deficient of awareness in hepatitis B patients which is very essential as a preventive and treatment arm of the same. The awareness helps in breaking various myths regarding HBV infection, thereby increasing compliance and overall success rate.

Conflicts of interest:

No financial assistance was taken for conducting this study and conflicts of interest were none.

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