Original Article

Study of complications and outcome of viral hepatitis at a tertiary care centre in rural Maharashtra: An observational study

Minhaj Pathan[1*], Abdul Jabbar[2]

[1]Associate Professor, Department of Physiology, Ulhas Patil Medical College, Jalgaon, Maharashtra, INDIA.
[2]Assistant Professor, Department of Medicine, Indian Institute of Medical Science and Research Medical College, Warudi, Badnapur, Jalna, Maharashtra, INDIA.
Email: pathanminhaj@rediffmail.com

Abstract

Introduction: Viral Hepatitis is a disorder in which virus causes inflammation in liver cells leading to cell injury or destruction. It varies in severity from being a self limiting condition to a life threatening disease. Present study describes complications and outcome of viral hepatitis from a rural tertiary care centre in Maharashtra. **Methods:** It is a descriptive observational study. Study duration was from February 2000 to October 2001. 100 diagnosed cases of viral hepatitis were included in the study. The details regarding complications like encephalopathy, Haematemesis, infection and renal failure were described along with their outcome. **Results**: From the total of 100 cases, 67 were males and 33 were females with a male: female ratio of 1.7:1. In the present study, complications like encephalopathy, Haematemesis, infection and renal failure were observed in 36 patients whereas remaining 64 patients had no complications. Of the 36 patients having complications, 17 (47.2%) expired whereas 19 (52.8%) survived. Encephalopathy was observed in 13 patients, of which 2 patients (15.4%) expired and 11 patients (84.6%) survived. There were 4 patients who had encephalopathy along with infection and among them mortality was 25%. Haematemesis was observed in association with encephalopathy in 9 patients of which 7 patients (77.7%) expired. Patients with encephalopathy, Haematemesis and infection were 3 in number of which 2 patients (66.6%) expired. Renal failure was observed along with encephalopathy, Haematemesis and infection in 5 patients and the mortality in such patients was 100%. Duration of hospitalization was less than 7 days in 60 patients, 7 to 15 days in 33 patients and 15 to 21 days in 7 patients.
Keywords: Viral hepatitis complications, encephalopathy, Haematemesis.

[*]**Address for Correspondence:**
Dr. Minhaj Pathan, Associate Professor, Department of Physiology, Ulhas Patil Medical College, Jalgaon, Maharashtra, INDIA.
Email: pathanminhaj@rediffmail.com
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INTRODUCTION

Acute viral hepatitis is a diffuse and necroinflammatory infection of the liver tissue along with its various systemic manifestations. The predominant etiological agents are Hepatitis A Virus, Hepatitis B Virus, Hepatitis C Virus, Hepatitis D Virus and Hepatitis E Virus. Others like Hepatitis G Virus, Cytomegalovirus (CMV), Herpes simplex virus, Epstein Barr virus and Yellow Fever virus account for only 1-2 per cent of all hepatitis causing viruses.[1] Acute viral hepatitis is a grave public health problem in India and Maharashtra affecting young, productive population. It accounts for severe morbidity and days lost from work. Even today, hygiene is very poor in many urban and rural parts of this state which is the reason for feco-orally transmitted hepatitis [2]. Present study describes complications and outcome of viral hepatitis from a rural tertiary care centre in Maharashtra.

MATERIAL AND METHODS

It is a descriptive observational study. It was carried out in the department of Medicine; SRT Rural Medical College and Hospital, Ambajogai, a tertiary care referral

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hospital in Beed district of Maharashtra state in India. Study duration was from Feb 2000 to Oct 2001. 100 diagnosed cases of viral hepatitis were included in the study. Acute viral hepatitis was defined as the discrete onset of clinical symptoms or signs compatible with viral hepatitis, elevation of serum aminotransferase levels greater than 2.5 times the upper limit of normal and exclusion of other causes of hepatocellular injury like medications, alcohol, hepatotoxins, congestive cardiac failure and metastatic carcinoma [6]. Detailed history and physical examination was done. The details regarding complications like encephalopathy, Haematemesis, infection and renal failure were described along with their outcome.

RESULTS

From the total of 100 cases, 67 were males and 33 were females with a male: female ratio of 1.7:1. In the present study, complications like encephalopathy, Haematemesis, infection and renal failure were observed in 36 patients whereas remaining 64 patients had no complications. Of the 36 patients having complications, 17 (47.2%) expired whereas 19 (52.8%) survived. Encephalopathy was observed in 13 patients, of which 2 patients (15.4%) expired and 11 patients (84.6%) survived. There were 4 patients who had encephalopathy along with infection and among them mortality was 25%. Haematemesis was observed in association with encephalopathy in 9 patients of which 7 patients (77.7%) expired. Patients with encephalopathy, Haematemesis and infection were 3 in number of which 2 patients (66.6%) expired. Renal failure was observed along with encephalopathy, Haematemesis and infection in 5 patients and the mortality in such patients was 100%. Duration of hospitalization was less than 7 days in 60 patients, 7 to 15 days in 33 patients and 15 to 21 days in 7 patients. Mortality was 20% in patients with duration of hospitalization less than 7 days, mortality was 15.1% in patients with duration of hospitalization 7 to 15 days and there was no mortality in patients with duration of hospitalization 15 to 21 days.

Table 1: Complications and Mortality in Viral Hepatitis Patients

Complications	Total Cases	Expired		Survived	
		Cases	Percentage	Cases	Percentage
Encephalopathy	13	2	15.4	11	84.6
Haematemesis	0	0	0	0	0
Infection	2	0	0	2	100
Encephalopathy + Haematemesis	9	7	77.7	2	22.3
Encephalopathy + Infection	4	1	25	3	75
Encephalopathy + Haematemesis + Infection	3	2	66.6	1	33.3
Encephalopathy + Infection + Renal Failure	3	3	100	0	0
Encephalopathy + Haematemesis + Infection+ Renal Failure	2	2	100	0	0
Total	**36**	**17**	**47.2**	**19**	**52.8**

DISCUSSION

In our study, complications like encephalopathy, Haematemesis, infection and renal failure were observed in 36 patients whereas remaining 64 patients had no complications. Of the 36 patients having complications, 17 (47.2%) expired whereas 19 (52.8%) survived. RC Goyal (1994) [3] in his study reported 26.5% cases with complications and 73.47% without complications. Mortality was 55.77% in those with complications. In the present study, haemorrhagic diathesis was a frequent complication with bad prognosis. Haematemesis was found in 9 patients with mortality of 77.7%. Vij and Tandon (1979)[4] reported mortality to be 89.1%. In the present study, mortality due to renal failure was 100% which developed in patients of hepatic encephalopathy along with Haematemesis and infection. Trivedi *et al* (1974) [5] found 93.7% mortality in patients who developed renal failure. Duration of hospitalization was less than 7 days in 60 patients, 7 to 15 days in 33 patients and 15 to 21 days in 7 patients. Mortality was 20% in patients with duration of hospitalization less than 7 days, mortality was 15.1% in patients with duration of hospitalization 7 to 15 days and there was no mortality in patients with duration of hospitalization 15 to 21 days. RC Goyal (1994) [3] in his study reported that majority of cases i.e. 45.41% were hospitalized for less than 7 days followed by 31.12% cases who were hospitalized for 7 – 14 days and 23.47% who were hospitalized for more than 2 weeks. Present study has attempted to describe complications and

outcome of viral hepatitis from rural tertiary care centre in Maharashtra. Further studies need to be done on a broad scale so as to understand complications of viral hepatitis in depth which can help in better management of this disease.

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