

## Clinical Profile of Viral Hepatitis at a Tertiary Care Centre in Rural Maharashtra: An Observational Study

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### Abstract :

**Introduction:** Viral hepatitis is a common disease in India and it occurs in epidemic and endemic forms. The variability in the nature of the disease regarding its onset, presenting symptoms, clinical course and the development of complications in hepatitis is an important aspect which requires attention from time to time. Present study describes clinical profile of viral hepatitis from a rural tertiary care centre in Maharashtra.

**Methods:** It is a descriptive observational study. Study duration was from Feb 2000 to Oct 2001. 100 diagnosed cases of viral hepatitis were included in the study. The clinical profile was described with details regarding age, sex wise distribution, incidence of presenting symptoms and physical signs, month wise distribution of cases, HBsAg positivity in cases, biochemical investigation results including serum bilirubin levels.

**Results:** From the total of 100 cases, 67 were males and 33 were females with a male: female ratio of 1.7:1. The commonest presenting symptom was yellowish discolouration of the eyes and urine seen in 100% cases followed by fever seen in 87% cases. Icterus was the most common presenting sign seen in 100% cases followed by hepatic tenderness seen in 83% cases. Highest number of cases (21%) was found in the month of August followed by 15% in April. Out of 89 patients in whom HBsAg was done, it was positive in 21% cases. Maximum patients (26) had serum bilirubin levels between 5.1 to 10 mg percent.

**Keywords:** Viral hepatitis, Icterus, serum bilirubin, HBsAg.

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### I. Introduction

Viral hepatitis is a major public health problem in all parts of the world with hepatitis B being the most important of all the forms of viral hepatitis <sup>1</sup>. Viral hepatitis is a common disease in India and it occurs in epidemic and endemic forms <sup>2, 3</sup>. Epidemics are known to occur in urban as well as rural areas <sup>4, 5</sup>. The variability in the nature of the disease regarding its onset, presenting symptoms, clinical course and the development of complications in hepatitis is an important aspect which requires attention from time to time. Present study describes clinical profile of viral hepatitis from a rural tertiary care centre in Maharashtra.

### II. Material And Methods

It is a descriptive observational study. It was carried out in the department of Medicine; SRT Rural Medical College & Hospital, Ambajogai, a tertiary care referral 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 <sup>6</sup>. Detailed history and physical examination was done. Blood samples were sent for investigations. Informed consent was obtained from each participant in the study. The clinical profile was described with details regarding age, sex wise distribution, incidence of presenting symptoms and physical signs, month wise distribution of cases, HBsAg positivity in cases, biochemical investigation results including serum bilirubin levels.

### III. Results

From the total of 100 cases, 67 were males and 33 were females with a male: female ratio of 1.7:1. The commonest presenting symptom was yellowish discolouration of eyes and urine seen in 100% cases followed by fever seen in 87% cases. Icterus was the most common presenting sign seen in 100% cases followed by hepatic tenderness seen in 83% cases. Highest number of cases (21%) was found in the month of August followed by 15% in April. Out of 89 patients in whom HBsAg was done, it was positive in 21% cases. Maximum patients (26) had serum bilirubin levels between 5.1 to 10 mg percent, 17 patients had serum bilirubin levels between 2 & 5 mg percent, 18 patients each had levels between 10.1 to 15 mg percent and 15.1 to 20 mg percent, 6 patients

had levels between 20.1 & 25 mg percent whereas 15 patients had levels greater than 25 mg percent. Maximum level seen was 38.1 mg percent while lowest level seen was 2.5 mg percent.

**IV. Tables:**

**Table-1: Distribution of Patients according to Age & Sex**

Age group (years)	Male	Female		Total (Females Pregnant + Non Pregnant)	Total (Males + Females)
		Pregnant	Non Pregnant		
12 to 19	6	1	6	7	13
20 to 29	19	11	3	14	33
30 to 39	16	0	6	6	22
40 to 49	10	0	3	3	13
50 & above	16	0	3	3	19
<b>Total</b>	<b>67</b>	<b>12</b>	<b>21</b>	<b>33</b>	<b>100</b>

**Table-2: Distribution of Patients according to Month of Admission**

Month of Admission	Year 2000		Year 2001		Total	
	Cases	Percentage	Cases	Percentage	Cases	Percentage
January	0	0	0	0	0	0
February	4	8.5	1	1.88	5	5
March	2	4.2	3	5.66	5	5
April	6	12.7	9	16.98	15	15
May	2	4.2	6	11.3	8	8
June	3	6.38	7	13.2	10	10
July	5	10.63	9	16.98	14	14
August	7	14.8	14	26.4	21	21
September	10	21.2	4	7.4	14	14
October	5	10.63	0	0	5	5
November	3	6.38	0	0	3	3
December	0	0	0	0	0	0
<b>Total</b>	<b>47</b>	<b>100</b>	<b>53</b>	<b>100</b>	<b>100</b>	<b>100</b>

**Table-3: Symptoms in Study Population**

Symptom	Number of Cases	Percentage
Yellowness of eyes	100	100
Yellowness of urine	100	100
Fever	87	87
Loss of appetite	85	85
Pain in abdomen	58	58
Nausea & Vomiting	55	55
Altered mental state	25	25
Malaena	9	9
Haematemesis	6	6
Swelling over feet	15	15
Pruritus	5	5
Distension of abdomen	10	10
Unconsciousness	9	9
Convulsions	7	7
Oliguria	4	4

**Table-4: Signs in Study Population**

Sign	Number of Cases	Percentage
Icterus	100	100
Pallor	45	45
Hepatomegaly	78	78
Hepatic Tenderness	83	83
Bradycardia	1	1
Hypotension	1	1
Ascites	10	10
Flapping tremors	13	13

## V. Discussion

In our study, from the total of 100 cases, 67 were males and 33 were females with a male: female ratio of 1.7:1. This has been attributed to males being more involved in outdoor activities and assignments especially in rural areas. Vij & Tandon<sup>7</sup>, AK Malhotra<sup>8</sup> also made similar observations. Maximum numbers of cases (33%) were in the age group of 20 to 29 years. SK Kandle et al<sup>9</sup> has also reported the maximum incidence of viral hepatitis in this age group. Highest number of cases (21%) was found in the month of August followed by 15% in April. Toshniwal HK et al<sup>10</sup> in their study of 1569 patients reported that maximum (33.4 %) patients were admitted in the month of August. The commonest presenting symptom was yellowish discolouration of eyes and urine seen in 100% cases. Toshniwal HK et al<sup>10</sup> in their study reported similar observations. Present study has attempted to describe clinical profile of viral hepatitis from a rural tertiary care centre in

Maharashtra. Further studies need to be done on a broad scale so as to understand viral hepatitis in depth which can help in designing effective interventions at community level for prevention and management of this infection.

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