

ORIGINAL ARTICLE

**Acute Hepatitis at the Department of Pediatrics,
School of Medicine, University of North Sumatra/
Dr. Pirngadi Hospital Medan**

by

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Abstract

A retrospective study was done during 1984-1988 in the pediatric ward of Dr. Pirngadi Hospital revealing 41 cases of acute hepatitis, consisted of 61.0% boys and 39.0% girls. The majority of patients were below five years of age (68.3%). There were 37.1% cases with malnutrition. The common symptoms were fever, jaundice, vomiting and dark urine. On laboratory examination there were 10 cases with positive HBs Ag. Accompanying diseases were malnutrition, bronchopneumonia, anemia, bronchitis and pulmonary tuberculosis. A total of 63.4% of patients were healed, 29.3% discharged against medical advice and 7.3% died because of bronchopneumonia and hepatic coma.

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Introduction

Viral hepatitis remains a worldwide health problem. It may result in an acute and chronic illness and many of the liver cancer (Chen, 1988).

The incidence of hepatitis in many countries was reported high. In USA, those infected individuals make up to 53,000 cases every year, where 53% might be caused by HAV, 30% HBV and the remaining 17% were not specified. In Germany there were about 200,000 new cases of viral hepatitis annually, while WHO reported 900,000 to one million cases of viral hepatitis every year (Danoseputro et al., 1984).

In Indonesia, being an endemic area of viral hepatitis with a relatively dense population, poor hygiene, low socio-economy, the incidence of viral hepatitis is expected to be high. At the Laboratory of Health Mataram, during 1972-1978 there

were 691 cases of hepatitis in children younger than 15 years (54.5% of all cases) (Soemoharjo et al., 1987). At the Department of Pediatrics School of Medicine University of North Sumatera/ Dr. Pirngadi Hospital Medan, from 1978 to 1982 there were 115 cases of all ages and the age groups of 0-1 and 3-11 years were predominant (Sutanto et al., 1983).

The purpose of this study is to evaluate the incidence of acute hepatitis at the Department of Pediatrics, School of Medicine University of North Sumatera/ Dr. Pirngadi Hospital, Medan, in the period of 1984 to 1988, including various aspects of clinical manifestation, laboratory findings, nutritional status, accompanying diseases, serological examinations, and the outcome of the patients.

Materials and methods

This study was done retrospectively from January 1984 to December 1988, based on the medical records of infants and children with the exclusion of patients admitted to the Division of Perinatology.

Data obtained, included age, sex, symptoms, body weight, accompanying disease, duration of hospitalization, and outcome of the disease.

Result

During those 5 years (1984-1988), there were 41 patients with acute hepatitis, where males appeared to be more than females (Table 1). The youngest was 4 days old and the oldest 14 years and 11 months. Twenty eight patients (68.2%) were well-nourished, and 13 (31.7%) malnourished.

The prominent symptoms and signs were liver enlargement (92.7%), yellow eyes (87.8%), fever (82.0%), vomiting (70.0%) dark urine (63.4%), loss of appetite (43.9%), nausea (39.0%). Other symptoms were cough, upper abdominal pain, and diarrhea.

Table 1 : Case distribution by age and sex

Age	Sex				Number	%
	Male	%	Female	%		
0 - 1	2	8.00	-	-	2	4.90
- 5	7	28.00	4	25.00	11	26.90
- 10	7	28.00	7	43.80	14	34.10
- 15	9	36.00	5	31.20	14	34.10
Total	25	61.00	16	39.00	41	100.00

Table 2 : Etiology of acute hepatitis

Etiology	Number	%
Hepatitis B	10	24.40
Typhoid fever	4	9.80
Unknown	27	65.80

Of 35 patients examined for HBsAg, only 10 cases revealed positive results. In addition, there were 4 cases with typhoid fever which were followed by abnormal liver function tests (Table 2).

There were also several accompanying diseases in 22 of 41 cases, such as malnutrition (59.0%), bronchopneu-

monia (18.2%), anemia (18.2%), bronchitis (13.6%), trichuriasis (13.6%), primary tuberculosis (9.10%), ascariasis (9.1%), UTI and hepatic coma 4.5%.

The results of liver function tests including bilirubin (total and direct), SGOT, SGPT, and alkaline phosphatase are shown in table 3.

Table 3 : *Liver function test*

Liver function test	Number of cases examined	Range
Total bilirubin	37	0.95 - 27.93
Direct bilirubin	37	0.15 - 17.98
SGOT	38	12.00 - 100.00
SGPT	36	24.00 - 140.00
Alkaline Phosphatase	39	16.00 - 820.00

Twenty six cases (63.4 %) were discharged in good condition after having been treated for 2 weeks; 12 patients (29.3 %) were discharged against medical

advice after seven days of treatment while 3 cases (7.3%) died after 7 days of hospitalization.

Discussion

In this study, we found 41 patients with hepatitis (25 - 61% males and 16 - 39% females). The highest prevalence was found in the age group of more than 1 year. Sutanto (1978 - 1982) reported that the highest prevalence in the age groups of younger than 1 year and 3-11 years.

The common symptoms and signs in these patients were similar to those reported by Zakaria (1978) and Hidayat (1987), namely fever, yellow eyes,

hepatomegaly, and dark urine as shown in the next table. SGOT and SGPT levels increased more than 100 times which were higher than that reported by Akbar (1985) who stated that the increase were 20-50 times higher than normal levels.

In this study, we had 10 cases (24.4%) with positive HBsAg; while a study in Mataram (1976-1978) had reported 66.0 % and 71.0% (Soemoharjo et al., 1987).

Table 4 : *Presenting symptoms & signs of acute hepatitis reported by several authors*

Symptoms	Zakaria (1978) %	Hidayat (1987) %	The author (1989) %
1. Fever	100.00	25.50	82.90
2. Yellow eyes	100.00	87.70	87.80
3. Hepatomegaly	100.00	93.00	92.00
4. Vomiting	48.00	22.00	70.70
5. Dark urine	100.00	87.70	63.40
6. Loss of appetite	92.60	—	43.80
7. Nausea	66.60	25.60	39.00

Conclusions

- The common symptoms in hepatitis patients (acute hepatitis) were fever, yellow eyes, hepatomegaly, dark urine, and vomiting.
- There were 10 cases with positive HBsAg and 4 cases with typhoid fever.
- The increase of SGOT and SGPT were found more than 100 times higher than the normal levels.
- Accompanying diseases were malnutrition, bronchopneumonia, anemia, bronchitis and hepatic coma.

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