



Community Readiness of Surabaya, Indonesia to Encounter Acute Hepatitis in Children

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Abstract

WHO reported the incidence of 'mysterious' acute hepatitis that attacked children in various countries on 5th April, 2022. This incident happened to previously healthy children, with ages ranging from 11 months to 5 years. The Ministry of Health of Indonesia has reported the findings of three suspected cases of death due to acute hepatitis in the two weeks until 30th April, 2022. As a precaution, the public is expected to know the cause of acute hepatitis that attacks children, recognize the symptoms, and know the steps to prevent and treat it. The design of this study used a qualitative descriptive study intending to provide an overview of the preparedness of the people in Surabaya to face acute hepatitis in children. The population of people of Surabaya who have children aged 0 months -16 years with the Accidental Sampling approach. The samples collected were 104 respondents who met the inclusion criteria. Data collection was carried out for 5 days from 16-20 May 2022 by filling out a knowledge questionnaire. Results showed that 89.4% of people of Surabaya knew the causes, symptoms, prevention, and treatment steps. Based on these data, it is stated that many people in Surabaya already know the causes, symptoms, prevention, and treatment steps. It can be concluded that they have the readiness to face acute hepatitis that attacks children. In addition to knowing and being ready, it is hoped that the community will be able to understand and implement maximum prevention measures so that acute hepatitis in children occurs in the Surabaya area.

Keywords:- Acute Hepatitis, Children, Readiness

Introduction

The Covid-19 pandemic has been going on for 2 years and the world is starting to enter a controlled pandemic period because the incidence is starting to slow down in various countries, suddenly the world community is shocked by the emergence of a mysterious severe acute hepatitis disease outbreak that attacks children where the cause of this disease is still unknown. is known. Consumption of coffee, tea also reduces iron absorption and thereby decrease iron overload in Liver and thereby reduces the oxidative stress of iron overload in liver ([Poddar, 2017](#)). Laboratory examinations have been carried out on those who have contracted the disease but have not found hepatitis A, B, C, D, and E viruses as the cause of the disease. However, adenovirus was detected in 74 cases of severe acute hepatitis disease identified as F- type 41 after molecular testing ([Rivero-Juarez et al., 2022](#)). Where the virus mainly spreads through the faecal-oral route and attacks the gastrointestinal tract, especially the intestines and respiratory tract. SARSCoV2 was found in 20 cases, and coinfection with SARSCoV2 and adenovirus was detected in 19 cases. ([Baker, 2022](#))

The World Health Organization (WHO) on 5 April 2022 the United Kingdom announced 10 cases of acute hepatitis of unknown etiology in children aged 11 months and 5 years from January to March 2022

in Central Scotland. Since the WHO officially declared it an extraordinary event (KLB) on April 15, 2022, the number of reports has continued to grow. On April 21, 2022, there were 169 cases. Some have been reported from 12 countries, namely UK (114), Spain (13), Israel (12) and USA (9), Denmark (6), Ireland (<5), Netherlands (4), Italy (4), Norway (2), France (2), Romania (1), Belgium(1). A range of 4,444 cases occurred in children aged 1 month to 16 years. It is said that 17 (10%) of them needed a liver transplant and 1 died ([WHO, 2022](#)). The Indonesian Ministry of Health has reported the findings of three suspected cases of death due to acute hepatitis in the two weeks to 30 April 2022 ([P2P Kemenkes RI, 2022](#)).

Several cases reports state that the initial symptoms experienced are gastrointestinal, namely nausea, vomiting, and severe diarrhoea, sometimes accompanied by low-grade fever or even no fever. Symptoms can continue with thick urine such as tea and pale white stools, yellowing of the eyes and skin, blood clotting disorders, hepatomegaly, seizures, and decreased consciousness. One person who died found encephalopathy. Clinical manifestations of blood laboratory results from identified cases of acute hepatitis are elevated liver enzymes and acute jaundice syndrome. There is no evidence that these events are related to the COVID-19 vaccination as most of the affected children have not received the COVID-19 vaccine ([Mucke, 2022](#)).

Based on this background, the researcher intends to determine the readiness of the people of Surabaya, Indonesia in dealing with Severe acute hepatitis disease in children whose cause is unknown. Although more in-depth information about the disease is still minimal, it is hoped that the community will still have readiness in dealing with the disease.

Research Methodology

The purpose of this study is to provide an overview of the readiness of the people in Surabaya to face severe Acute Hepatitis in children. The design of this study is a qualitative descriptive study with the variable in this study is the readiness of the community which is assessed through public knowledge about the incidence of Severe Acute Hepatitis Disease.

The population in this study is the people of Surabaya who have children aged 0 months -16 years. Sampling in this study used an accidental sampling technique where 120 respondents were collected. Furthermore, the sample in this study was 104 people who had met the inclusion criteria.

Data collection was carried out for 5 days from 16-20 May 2022 by filling out a knowledge questionnaire. The questionnaire contains 15 closed positive questions with a choice of "yes" or "no" answers, with details of 4 questions about the concept of acute hepatitis, 3 questions about the causes of acute hepatitis, 4 questions about the symptoms of acute hepatitis, and 4 questions about the management of acute hepatitis. The questionnaire was prepared based on a circular from the Ministry of Health regarding severe Acute Hepatitis whose cause is unknown.

Data analysis with descriptive statistics to describe the variable of community readiness which is described through a public knowledge questionnaire about acute hepatitis.

Result

From the results of research conducted on 104 respondents, the following results were obtained. Analysis was carried out on each variable from the research results to determine the frequency distribution and percentage of the variables. Data is displayed in table and text form.

Table 1: Frequency Distribution of Respondent's Gender

Gender	Frequency	%
Man	12	11.5
Woman	92	88.5
Total	104	100.0

In this study most of the respondents were women as much as 88.5%.

Table 2: Frequency Distribution of Respondent's Age

Age	Frequency	%
22	1	1.0
23	1	1.0
25	2	1.9
26	3	2.9
27	3	2.9
28	11	10.6
29	3	2.9
30	5	4.8
31	4	3.8
32	4	3.8
33	7	6.7
34	6	5.8
35	6	5.8
36	11	10.6
37	2	1.9
38	5	4.8
39	3	2.9
40	5	4.8
41	3	2.9
42	1	1.0
43	2	1.9
44	1	1.0
45	5	4.8
48	2	1.9
49	1	1.0
51	1	1.0
52	3	2.9
55	1	1.0
56	1	1.0
60	1	1.0
Total	104	100.0

In this study, most of the respondents aged 28 years and 36 years were undergraduates as much as 10.6%.

Table 3: Frequency Distribution of Respondents' Education Level

Level of education	Frequency	%
Junior High School	4	3.8
Senior High School	33	31.7
Bachelor Degree	52	50.0
Master Degree	15	14.4
Total	104	100.0

In this study, most of the respondents were undergraduates as much as 50%.

Table 4: Frequency Distribution of Community Readiness on Acute Hepatitis

Community Readiness	Frequency	%
Acute Hepatitis Concept	87	83.7%
Causes of Acute Hepatitis	55	52.9 %
Symptoms of Acute Hepatitis	93	89.4%
Treatment of Acute Hepatitis	96	92.3%
Average		79.6%

In this study, most of the respondents had readiness to face acute hepatitis, namely 79.6% which was described through a public knowledge questionnaire about acute hepatitis. 83.7% of respondents have understood the concept of acute hepatitis. 52.9% of respondents have understood the causes of acute hepatitis, 89.4% of respondents have understood the symptoms of acute hepatitis. 92.3% of respondents have understood about the management of acute hepatitis.

Discussion

Until now, there are not many articles that discuss this mysterious acute hepatitis disease. However, most of the existing articles explain that this disease is still being investigated further. Provisional suspicion of Adenovirus type F-41 as the cause of acute hepatitis in a molecular test in 74 previous cases. ([Mucke, 2022](#)). WHO is still conducting epidemiological, clinical, and exposure history studies, and further laboratory testing ([WHO, 2022](#)).

Adenovirus F-41 is a type of virus that mainly spreads through the fecal-oral route and attacks the gastrointestinal tract, especially the intestines and respiratory tract ([Baker, 2022](#)). So the first symptoms experienced are gastrointestinal, namely nausea, vomiting, severe diarrhea, and sometimes no fever or mild fever. ([Rivero-Juarez et al., 2022](#)). By understanding the concepts, causes, symptoms, and treatment of acute hepatitis, it is hoped that the community, especially the people of Surabaya, Indonesia, will have readiness in dealing with acute hepatitis in children.

Respondents' understanding of the concept of severe acute hepatitis includes the mysterious emergence of severe acute hepatitis in children in several countries, severe acute hepatitis in children has been declared an extraordinary event by WHO, and the age range for severe acute hepatitis in children is about 1 month until 16 years and severe acute hepatitis was first reported in the United Kingdom ([P2P Kemenkes RI, 2022](#)). Most of the respondents' answers to the four questions were "yes" and 83.7% of respondents had understood the concept of acute hepatitis according to the circular of the Ministry of Health.

Questions about the causes of severe acute hepatitis include, severe acute hepatitis has nothing to do with COVID-19, there is a relationship between severe acute hepatitis and adenovirus, and hepatitis A, B, C, D, and E viruses are not found in all cases of severe acute hepatitis ([P2P Kemenkes RI, 2022](#)). More than half of the respondents' answers to the three questions were "yes", namely 52.9% of respondents had understood the causes of acute hepatitis. This is because respondents still think that severe acute hepatitis is a side effect of Covid-19 virus infection. However, most of the respondents managed to answer "yes" to the question about the relationship between severe acute hepatitis and adenovirus and that hepatitis A, B, C, D, and E viruses were not found in the incidence of this disease correctly. The results of the ECDC investigation, from 169 cases that have occurred, SARSCoV2 was detected in 20 cases, and coinfection with SARSCoV2 and adenovirus was detected in 19 cases. ([ECDC, 2022](#))

Respondent's understanding of symptoms of severe acute hepatitis is good, 89.4% can be explained through the respondent's knowledge about the symptoms of severe acute hepatitis, nausea, vomiting, severe diarrhea, low-grade fever is an early symptom of severe acute hepatitis, urine is colored like tea and pale white stools, Yellowing of the eyes and skin, blood clotting disorders, seizures, decreased

consciousness are further symptoms of Severe Acute Hepatitis Disease, and that there is no need to wait for further symptoms such as yellow skin and eyes to ensure that the disease suffered by the child is Severe acute hepatitis disease or not ([P2P Kemenkes RI, 2022](#)).

Respondents have a good understanding of the handling of severe acute hepatitis, which is 92.3%. Respondents' understanding of handling the disease includes, "routinely washing hands, making sure the food is cooked and clean, not changing eating utensils with other people, avoiding contact with sick people, keeping the house and environment clean" is a way to prevent Severe acute hepatitis disease through channels. digest, "reduce mobility, use a mask when traveling, keep a distance from other people, avoid crowds or crowds" is a way to prevent Severe acute hepatitis disease through the respiratory tract, if initial symptoms appear, do not panic and be immediately taken to the nearest health center and hospital, and do not have to wait for further symptoms such as yellow skin and eyes to ensure that the disease suffered by the child is a severe acute hepatitis disease or not ([P2P Kemenkes , 2022](#)).

Conclusion

Based on these data, it is stated that many people in Surabaya, Indonesia already know the causes, symptoms, prevention and treatment steps even though the information obtained about this disease is still minimal. It can be concluded that they have readiness to face acute hepatitis that attacks children. In addition to knowing and being ready, it is hoped that the community will be able to understand and implement preventive measures to the maximum so that acute hepatitis in children occurs in the Surabaya area, Indonesia.

Conflict of Interest

The authors declare that they have no competing interests.

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