

Outbreak of acute hepatitis of unknown etiology in children: The critical role of healthcare professionals in neutralizing misleading narratives during the COVID-19 pandemic

Dear Editor,

The World Health Organization (WHO) has confirmed acute hepatitis of unknown etiology among 169 children across 11 countries as of April 21, 2022. The age of the children ranged from 1 month to 16 years. Most of the reported cases were from the countries in WHO European region, where the highest numbers have been detected in the United Kingdom ($n = 114$) followed by Spain ($n = 13$), Israel ($n = 12$), and the United States ($n = 9$). This outbreak is accompanied by a poor prognosis resulting in 10% of patients requiring liver transplantation and one fatal case.¹ This new outbreak may create an immense pandemonium among the general population and can impact the ongoing maneuvers against the COVID-19 pandemic. Since all the countries are striving hard to achieve herd immunity against SARS-CoV-2 and children are primarily targeted for the COVID-19 vaccines, serious responsibilities lie on the shoulders of healthcare professionals.

The occurrence of the new outbreak during this fragile time when pediatric vaccination against COVID-19 is a global priority may generate various conspiracy theories. The electronic media and conspiracy theorists can relate this outbreak to the ongoing COVID-19 childhood vaccination. As the most common cause of acute hepatitis such as hepatitis viruses has been ruled out, people can swiftly relate it to the COVID-19 vaccines. However, it is an impetus to mention that majority of the affected children did not receive vaccines, so there is no basis to believe that vaccines have caused the spike in acute hepatitis cases. Additionally, none of the currently confirmed cases in the United Kingdom is known to have been vaccinated.² However, the propensity of triggering inflammation in hepatocytes due to COVID-19 infection cannot be disregarded. It is pertinent to mention that 20 out of the total reported cases tested positive for SARS-CoV-2. Liver abnormalities have been reported in up to 15% of COVID-19 adult patients³ and there are also reports on pediatric cases of acute hepatitis during the course of COVID-19.⁴ The likelihood of acute hepatitis due to COVID-19 infection can be communicated to the general population if they showed any doubts or concerns over its association with the vaccines.

Communicating this outbreak with the general population is important as various health authorities around the globe have

suggested advising parents to observe signs of hepatitis.² In this context, several doubts and concerns about the cause of the outbreak may originate in the general community. The healthcare professionals at various levels, either in hospitals or community pharmacies, should carefully monitor the public response to the outbreak. Educating the community about the possible cause of the outbreak is also important to neutralize any misleading narratives linking the outbreak with ongoing measures against the COVID-19 pandemic. The most appealing attributing factor of this outbreak is adenovirus as it has been detected in 74 cases where 19 cases had adenovirus and SARS-CoV-2 co-infection.¹ Adenoviruses have been known to cause acute hepatitis in immunocompromised children, few cases have also been reported in immunocompetent pediatric population.⁵ The existing evidence suggest a possibility of infection behind increased cases of acute hepatitis among children and negated the other factors such as toxin exposure. In addition, the emergence of novel pathogens and lowered immunity due to reduced social mixing during the pandemic might be attributed to this outbreak. Since the investigations on possible causes of the outbreak are currently underway, the healthcare professionals should take the responsibility to observe and counter any fear among the general population about its association with the childhood vaccination against COVID-19. On the other hand, we have previously communicated the negative role of media in spreading falsehoods, self-medication, and conspiracy theories during the COVID-19 pandemic.⁶⁻⁸ We believe that the dissemination of premature information and the amplified exemplification of this outbreak by the electronic and paper media will create panic and fear among the general community as well as boost the conspiracy against ongoing pediatric vaccination. In this context, we suggest health authorities around the globe to monitor and control any floating information about this outbreak. Healthcare professionals should be vigilant enough to report and control any misleading narrative floating in the community.

AUTHOR CONTRIBUTIONS

Yusra H. Khan, Tauqeer H. Mallhi, Abdullah S. Alanazi, Muhammad H. Butt, Amjad Khan, and Muhammad Salman were involved in conceptualizing, literature review, and drafting of the letter.

Tauqeer H. Mallhi and Yusra H. Khan critically revised the letter for final submission. All authors approved the final version for submission and publication of the content.


CONFLICTS OF INTEREST

The authors declare no conflicts of interest.


DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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