Prevention of SARS-CoV-2 infection in patients with decompensated cirrhosis

We read the Comment by Chao Zhang and colleagues’ in The Lancet Gastroenterology & Hepatology on liver injury in coronavirus disease 2019 (COVID-19) with great interest. Given that patients with decompensated cirrhosis have a higher risk of, and mortality from, infection, preventing infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in this patient population is a challenging task. We provide our experience of COVID-19 prevention in patients with decompensated cirrhosis in Wuhan, China.

111 patients with decompensated cirrhosis in the Department of Gastroenterology, Renmin Hospital of Wuhan University, Wuhan, China, were included, after approval from the ethics committee of the hospital and provision of written informed consent from each patient or their representative. 82 patients were outpatients (previously hospitalised and discharged between July, 2018, and April, 2019) and 29 were inpatients (hospitalised between Jan 1, 2020, and Feb 4, 2020). All patients had been diagnosed with cirrhosis by abdominal CT scan, CT during arterial portography, or liver biopsy.

Between Jan 1, and Feb 3, 2020, messages relating to precautions to take against COVID-19, including protective measures aimed at preventing patient infections and precautions for cirrhotic complications (panel), were sent to outpatients via WeChat every 3 days for a total of 12 times. Feedback from the patient was collected every day via WeChat. For inpatients, new precautionary procedures were implemented, including hospital staff training, health education for patients and their companions, new processes for diagnosis and treatment, emergency plans, and suggestions for discharging patients (panel). After 14 days, on Feb 18, 2020, a questionnaire was sent to all participants to investigate their symptoms and satisfaction with the messaging system.

Of the 111 patients, the mean age was 58·7 years (SD 10·7) (appendix pp 1–2), most of whom came from Wuhan, the city hardest hit by the outbreak (appendix p 3). One patient died after 19 days in hospital because of multiple organ failure. At follow-up, none of our participants had clinical symptoms...
suggestive of SARS-CoV-2 infection. By contrast, five (2%) of 250 patients without cirrhosis and six (16%) of 38 health-care workers were diagnosed with COVID-19 by casual testing in our ward. Several outpatients complained about mild gastrointestinal and respiratory symptoms, which were resolved by rest, proton pump inhibitors, and probiotics (appendix p 2).

As an additional comparator, we calculated the incidence of COVID-19 among 101 inpatients with decompensated cirrhosis at five other hospitals in Wuhan over the same period, where our approach had not been implemented. 17 (17%) of these 101 patients were diagnosed with COVID-19 (p=0.018 vs our group; appendix p 4). This simple approach could be an effective means of preventing COVID-19 in patients with decompensated cirrhosis. However, our sample size is small and larger studies are needed.

We declare no competing interests. We thank Xia Tian (Department of Gastroenterology, TongRen Hospital of Wuhan University, Wuhan, China), Hui Long (Department of Gastroenterology, Tianyou Hospital Affiliated to Wuhan University of Science and Technology, Wuhan, China), Xiaowei Wu and Ji Wang (Department of Gastroenterology, Hanyang Hospital Affiliated to Wuhan University of Science and Technology, Wuhan, China), Huimin Liu (Department of Gastroenterology, The Second Affiliated Hospital of Jianghan University, Wuhan, China), and Ying Xu (Department of Gastroenterology, Wuhan Hankou Hospital, Wuhan, China) for providing data regarding their inpatients with cirrhosis. YX and HP contributed equally.

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