LETTER TO THE EDITORS

Increased incidence of COVID-19 among liver transplant patients in Europe

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To the Editors,

We read with great interest the manuscript by Polak *et al.* [1], which analyzed the incidence of coronavirus disease 2019 (COVID-19) among liver transplant recipients in Europe by using the European Liver Transplant Registry (ELTR). The authors reported a cumulative incidence of 0.34% (range: 0.1–4.8%) up to April 24. This is an outstanding study, which provides valuable information. However, there are some limitations to be highlighted and the results are to be interpreted with caution accordingly.

During the evaluated period, the COVID-19 pandemic was heterogeneous across European countries. According to the European Centre for Disease Prevention and Control, the case notification rate ranged from 0 cases to 143 cases per 100 000 habitants depending on the country [2]. In the present manuscript, the overall COVID-19 cumulative incidence was calculated but disaggregate country-specific data were missing, thus making it difficult to interpret the results. The Spanish Society of Liver Transplantation (SETH) recently performed a nationwide study within the same period and showed a cumulative incidence of COVID-19 of 0.84% among liver transplant patients, which doubled that of the age- and gender-matched Spanish general population (standardized incidence ratio: 191.2) [3]. Since Spain has registered one of the highest incidence rates of COVID-19, similar numbers would be expected in the UK, Italy, or France, but would be much lower in the remaining European countries. Therefore, the upper range reported in the ELTR study (i.e., 4.8%) may not be realistic.

The study of Polak *et al.* [1] was based on a voluntary survey, which did not include data from all transplant institutions. It may well be that those centers with reduced number of COVID-19 cases would not have reported their experience, thus resulting in an overestimation of the overall cumulative incidence. In the SETH study, the nurse transplant coordinators at each center actively searched COVID-19-positive cases. All transplant institutions enrolled one or more COVID-19 patients excepting three hospitals, which confirmed that none of their patients had been infected by SARS-CoV-2.

Another relevant limitation of the study is the definition of COVID-19, which comprised not only PCR-positive in swab specimens, but also highly suggestive lung injury on thoracic CT scan without PCR confirmation. It is well established that there is no unequivocal radiological pattern of COVID-19, neither in the chest X-ray, nor in the CT scan [4]. Again, this could have almost doubled the true incidence of COVID-19 according to another recent European study [5], but, more importantly, could have introduced heterogeneity in the diagnosis of the included patients.

In conclusion, the cumulative incidence of COVID-19 in Europe may have been overestimated and could vary widely among countries depending on their individual epidemiological situation. Future studies performed on a European scale could consider disaggregating COVID-19 incidence in each country to provide a more realistic epidemiological picture.

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Conflict of interest

The authors declare no conflict of interest with regard to this manuscript.

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