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LETTER TO THE EDITOR

The impact of Coronavirus 19 disease on liver transplantation in France: The sickest first approach?

Dear Editor,

In December 2019, the outbreak of an emerging disease (COVID-19) started in China and was declared as a pandemic in March 12th 2020 [1]. France is one of the most severely affected nations by this global health crisis [2].

Although the risks of donor-recipient disease transmission or increased recipient mortality have been suggested, there is limited data regarding the effects of COVID-19 on cirrhotic or transplanted patients [3,4].

National Recommendations

In France, the National Transplant Agency (ABM) and the Public Health Council (HCSP) recommended a screening of all donors via NPS. In cases of COVID-19-positive donors, a risk-benefit evaluation was to be performed with the recipient's involvement (Fig. 1 a). In cases of kidney transplantation, if the risk to the recipient exceeded the benefit of the transplant, the procedure was postponed. Conversely, when the transplantation was urgent (eg. heart, lung, liver, combined and paediatric transplantation) it was recommended to perform the transplant [5].

Adjustments to our Transplant Program

Since March 15th to 30th 2020, the number of liver transplantation (LT) has been reduced (Fig. 1b, 1c). 44 donor livers have been nationally offered and 28 LTs have been performed. Two of these took place at our Unit compared to 5 during the same period in 2019 [5].

Our hospital is the tertiary referral centre for all severe cases of COVID-19 from the Paris metropolitan area with a dedicated facility for COVID-19-positive patients, and our LT Unit maintained a continued level of service for LT patients. Since March 30th, we expanded our ICU capacity from 90 to 157 beds. Of these, 116 were dedicated to COVID-19-positive patients only. This means that a significantly smaller quantity of beds was available to COVID-19-negative patients. Access to ICU care forms a critical component of LT and thus, key decisions were needed to balance the risks of patient safety and organ allocation.

Our LT Unit recognised these challenges early and implemented several preventative measures:

- training and awareness of infection control measures for physician and nurses;
- training all personnel in the management of critically unwell patients;
- specialist input from the Respiratory Medicine and Infectious Diseases teams;
- development of a specific COVID-19-negative area;
- cancellation of elective admissions and outpatient activities;
- reduction in overall surgical activity;
- prohibition of all nonessential patient and family visits to the hospital;
- remote outpatient care through telephone consultations;
- screening all donors and recipients pre-transplant via NPS;
- screening of patients or personnel suspected to be infected via NPS or pre-emptive isolation;
- enrolment of COVID-19-positive patients in a specialised follow-up program.

A new management on waitlist patients was applied and patients on waiting for LT with the following characteristics were temporarily suspended:

- > 65 years old with several co-morbidities;
- HIV co-infection;
- MELD score < 20;
- Surgical complexities.

We also decided to enrolment all patients undergoing HCC-specific treatments that could not be delayed. We also had a low threshold to admit all LT patients with early or late complications.

All in all, we will continue sharing our best practices and adopting better ones of other Transplant Units. Our patients remain our highest priority.

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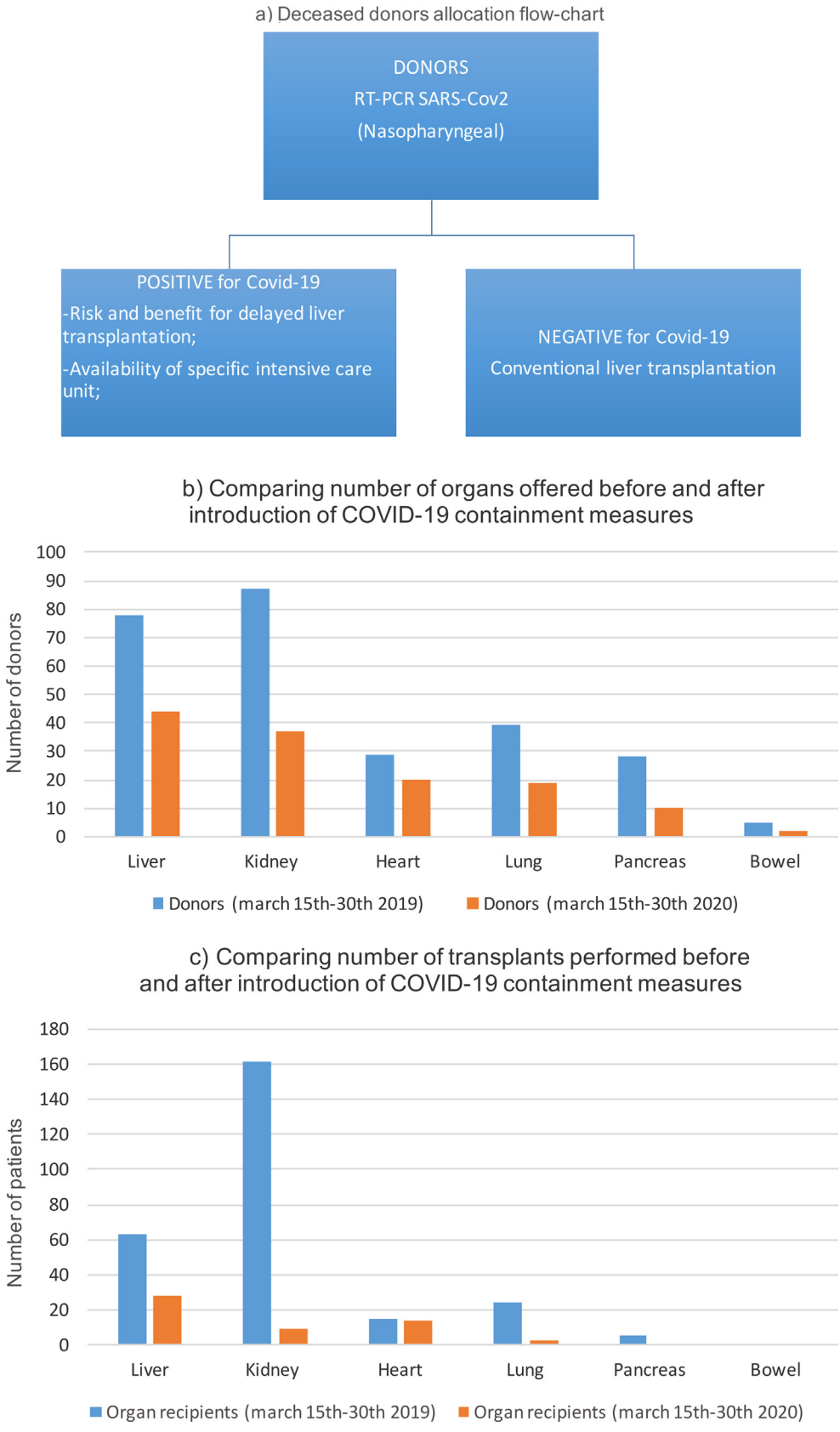

Fig. 1 (a) Deceased donors allocation flow-chart; (b) Comparing number of organs offered before and after introduction of COVID-19 containment measures; (c) Comparing number of transplants performed before and after introduction of COVID-19 containment measures.

Disclosure of interests

The authors declare that they have no competing interests.

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Alessandra Mazzola[a,b,*]
François Kerbaul[c]
Muhammad Atif[d]
Antoine Monsel[e]
Géraldine Malaquin[f]
Valérie Pourcher[g,h]
Olivier Scatton[b,i]
Filomena Conti[a,b,j]

[a] *AP—HP, Unité Médicale de Transplantation Hépatique Hôpital Pitié Salpêtrière, Boulevard de l'Hôpital 47-83, 75013 Paris, France*
[b] *Sorbonne Université, inserm, Centre de recherche Saint-Antoine (CRSA), Paris, France*
[c] *Pôle National de Répartition des Greffons. Direction Prélèvement Greffe Organes Tissus. Agence de Biomédecine, 93212 La Plaine Saint Denis cedex*
[d] *AP—HP, Centre d'immunologie et maladies infectieuses, Sorbonne Université, Paris, France*
[e] *AP—HP, Département d'Anesthésie et Réanimation Pitié Salpêtrière, Boulevard de l'Hôpital 47-83, 75013 Paris, France*
[f] *Pôle National de Répartition des Greffons. Direction Prélèvement Greffe Organes Tissus. Agence de Biomédecine 93212 La Plaine Saint Denis cedex*
[g] *AP—HP, Service des Maladies Infectieuses, Hôpital Pitié Salpêtrière, Boulevard de l'Hôpital 47-83, 75013 Paris, France*
[h] *Sorbonne Université, inserm 1136, Institut Pierre Louis d'Epidémiologie et de Santé Publique, 75013, Paris, France*
[i] *AP—HP, Unité de Chirurgie Hépatobiliaire et Transplantation hépatique, Hôpital Pitié Salpêtrière, Boulevard de l'Hôpital 47-83, 75013 Paris, France*
[j] *Sorbonne Université, inserm, Institute of Cardiometabolisme and Nutrition (ICAN), Paris, France*

* Corresponding author.
E-mail address: alessandra.mazzola3@gmail.com
(A. Mazzola)

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