

Successful COVID-19 + Liver Transplant in an Unvaccinated Patient: A Case Report and Review of the Literature

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BACKGROUND

- 3/2020: Decline in solid organ transplant (SOT)
- 6/2020: Consideration of transplant with COVID-19+ organs
- Fall 2020: Early guidelines re: COVID-19+ donors/recipient
- 2021: Recommendation that recipients of COVID-19+ organs receive vaccination first

CASE

- 25 y/o F s/p acetaminophen (APAP) OD
- Healthy - UNVACCINATED for COVID-19
- Psychiatric history
 - Post-partum depression
 - Prior suicide attempt via OD
- Day 1: Fulminant hepatic failure (Table 1)
- Day 3: Global cerebral edema and cerebellar tonsillar herniation → neuro-ICU (Figure 1)
- Day 4: COVID+ liver becomes available
 - Support of Ethics and CL teams
- Day 4: Decision to proceed with orthotopic liver transplant
- Post-op day (POD) 6: prophylactic M-Ab
- POD 8: Sero-conversion to COVID+
 - Remdesevir and steroids started
 - Subsequent COVID-19 PCR negative
- POD 10: Successful extubation
- POD 16: Transfer to inpatient physical rehab
- 12 months later: Patient is WELL & healthy post-transplant

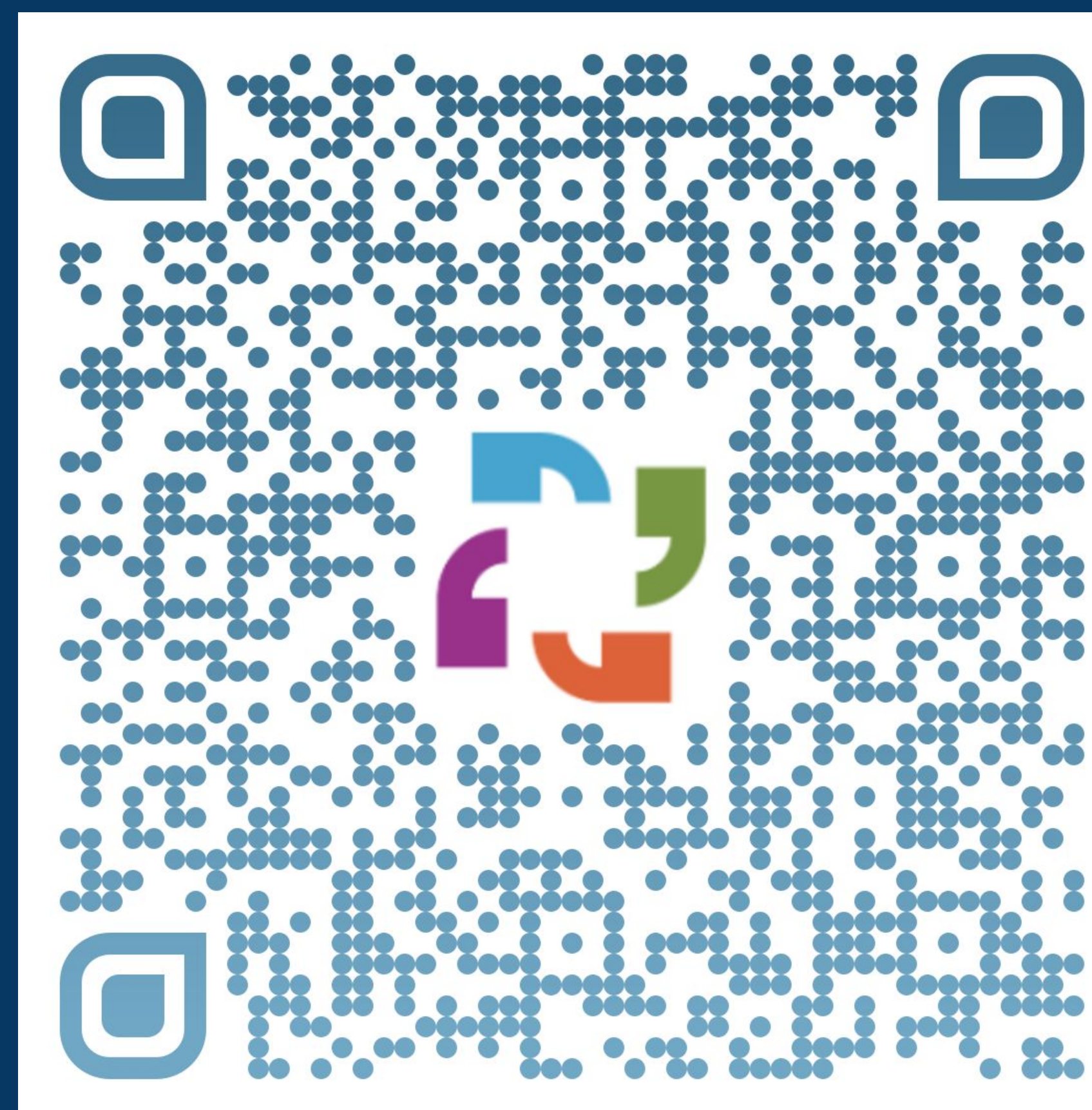
Table 1: Admission Labs

Day 1 of admission	Day 2 of admission
AST: 2852; ALT: 3364	AST: 9517; ALT: 9686
PT: 70.3s; INR: 6.2	PT: > 120s; INR: > 9.7
Ammonia: 86	Ammonia: 153



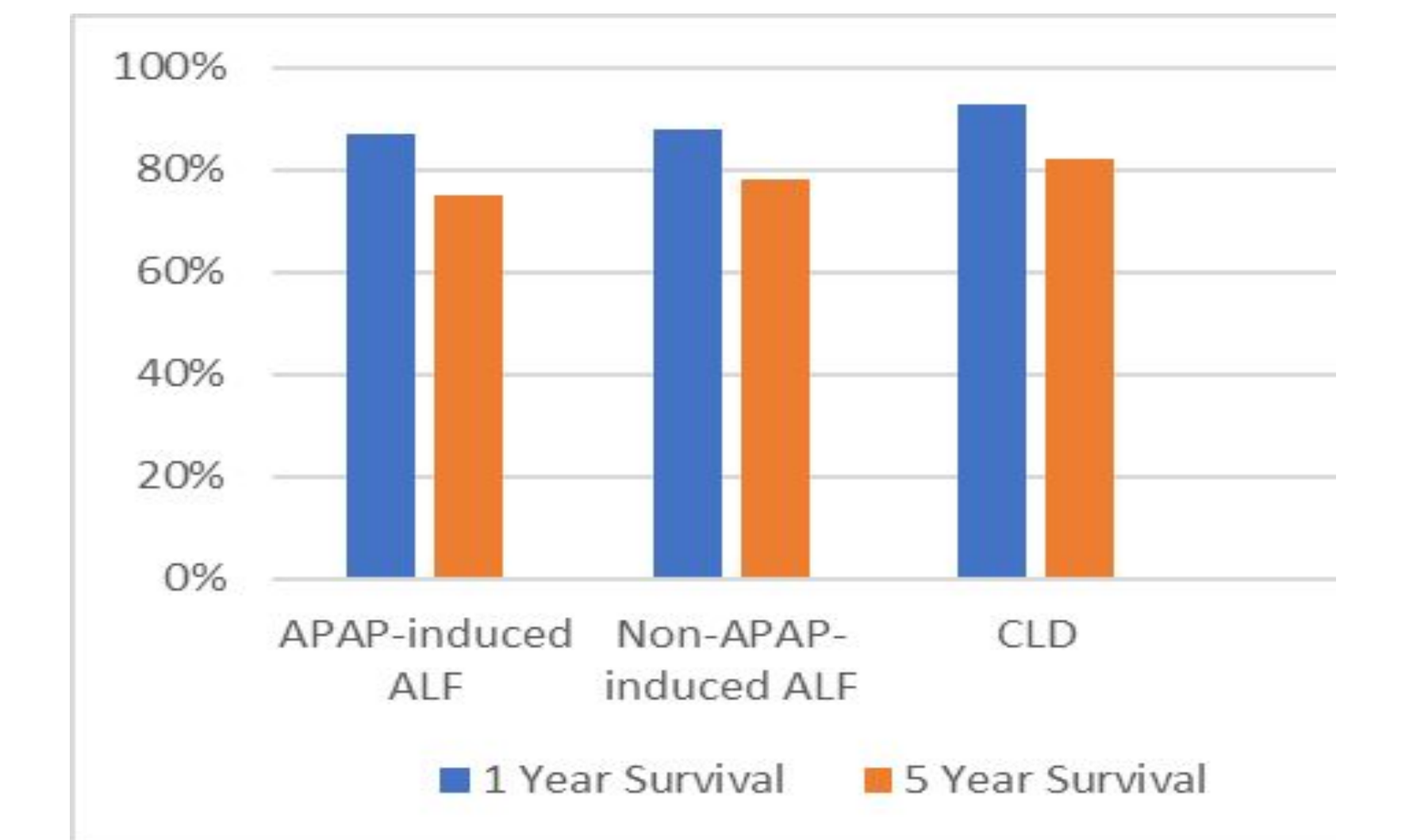
Figure 1: CT head on day 3 of admission

COVID+ liver transplant in young unvaccinated recipient s/p acetaminophen overdose yields an excellent outcome one year later



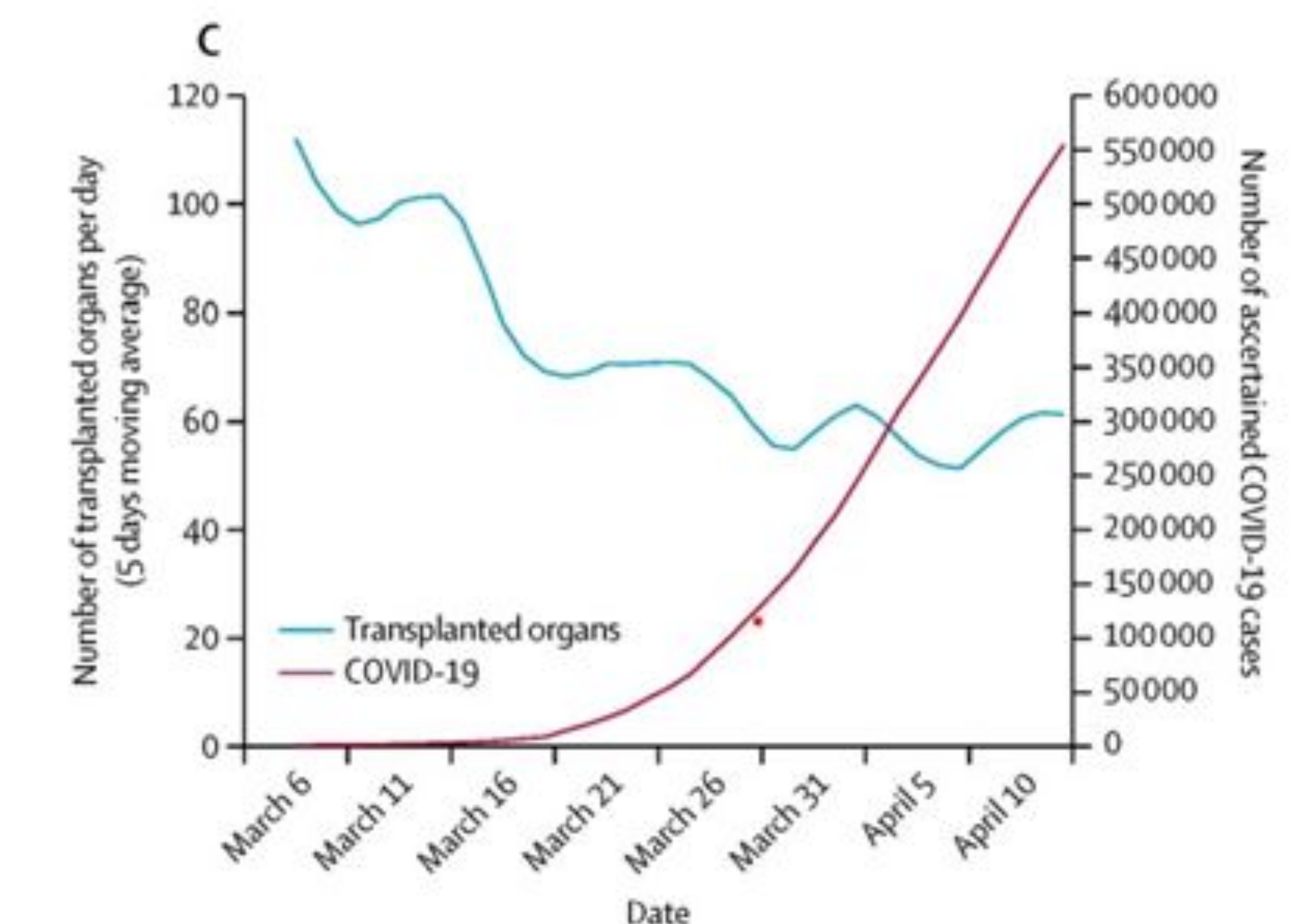
DISCUSSION

- Outcomes of liver transplant post-APAP OD comparable with other causes



Karvellas et. al (2010)

- Organs from COVID-19+ donors can mitigate disruption of organ availability



COVID-19 effects on SOT in 2020 - UNOS data

- Thus far outcomes of COVID+ solid organs post transplant are encouraging
 - 15 cases of COVID+ liver donors show NO virus transmission to recipient
 - Non-lung COVID+ organs function well post-transplant (short term follow-up)
 - Regardless of recipient immunity status