

SUPPLEMENTARY MATERIAL

Acute Liver Injury in Liver Transplant Recipients with Coronavirus Disease 2019 (COVID-19):

US Multicenter Experience

Supplementary Figure Legend

Figure S1 COLD Transplant Study Design

Figure S2 Modification of Immunosuppression in Liver Transplant Patients with COVID-19

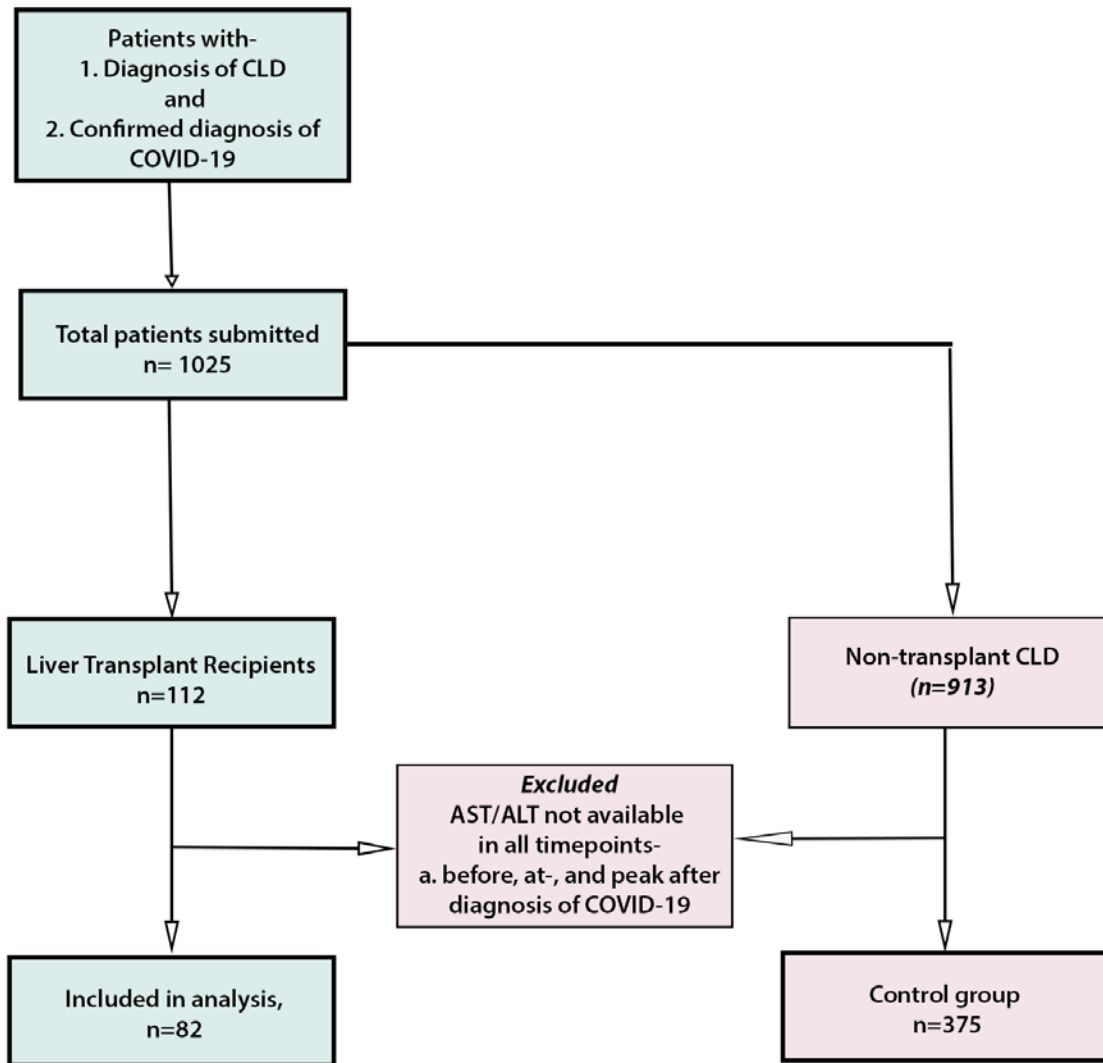
Supplementary Table Legend

Table S1 Hepatotoxic Medications Received during COVID-19

Table S2 Multivariate analysis of predictors of ICU stay in LT recipients with COVID-19

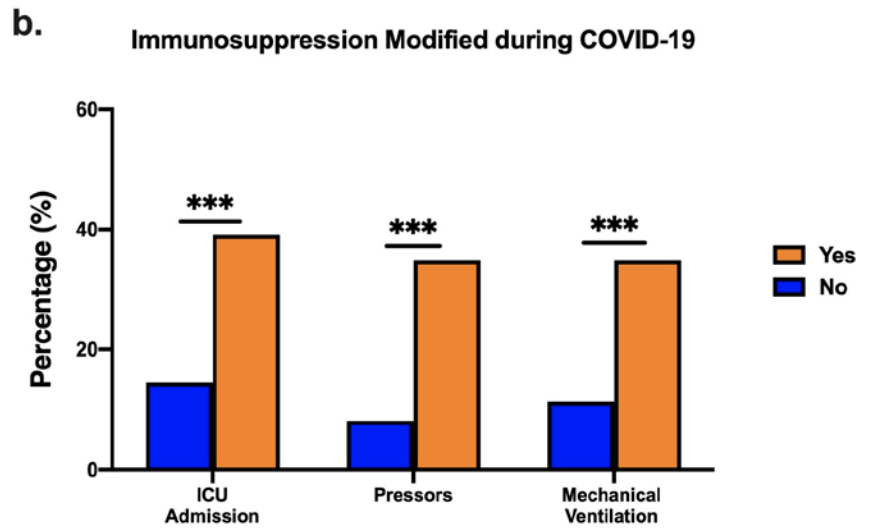
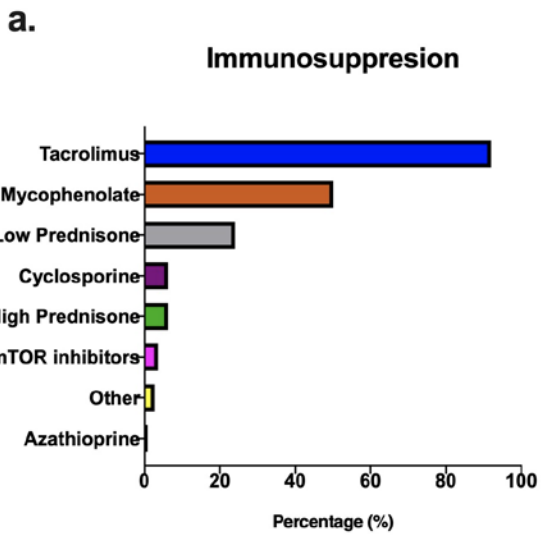
SUPPLEMENTARY FIGURES

Figure S1 COLD Transplant Study Design



COLD = COVID-19 in chronic liver disease; COVID-19 = 2019 Coronavirus Disease;
CLD = chronic liver disease; AST = aspartate transaminase; ALT = alanine
transaminase

Figure S2 Modification of Immunosuppression in Liver Transplant Patients with COVID-19



*** $p < 0.001$

Table S1: Hepatotoxic Medications Given during COVID-19

Hepatotoxic Medication Category	Subcategory	Number of Patients (%)
Antibiotics/Antifungals	Cephalosporin	44 (39.3)
	Fluoroquinolones	7 (6.3)
	Azoles	5 (4.5)
	Metronidazole	2 (1.7)
	Beta Lactam	3 (2.6)
	Sulfamethoxazole/Trimethoprim	2 (1.7)
	Daptomycin	1 (0.9)
	Vancomycin	1 (0.9)
	Atovaquone	1 (0.9)
	Anti-acid medications	PPI
Anti-Hyperlipidemia	Statins	19 (17.0%)
Antiarrhythmic	Amiodarone	3 (2.7)
Analgesics	APAP	39 (34.8)
	NSAIDs	4 (4.9)
Antihypertensives	ACEi	10 (8.9)
	ARB	3 (2.7)
Anticonvulsants		2 (1.7)
Anesthesia		0 (0)
Anti-Diabetic	Insulin	36 (32.1)
	Metformin	1 (0.9)

ACEi = angiotensin-converting enzyme; APAP = Paracetamol; ARB = angiotensin II receptor blocker; COVID-19 = 2019 Coronavirus Disease; NSAIDs = Non-steroidal anti-inflammatory drugs, inhibitors; PPI = proton pump inhibitor.

Table S2: Multivariate Analysis of Predictors of ICU admission in Liver Transplant Recipients with COVID-19

	Univariate			Multivariate		
	p value	Odds Ratio	95% CI	p value	Hazard Ratio	95% CI
Liver Injury	0.003	4.56	1.69-12.22	0.007	7.93	1.76-35.79
Age (>65 years)	0.243	1.87	0.74-4.74	0.074	3.23	0.89-11.67
Sex (Female)	0.173	0.57	0.23-1.45	0.375	0.570	0.16-1.97
Race- Non-Hispanic White	0.465	0.61	0.23-1.63	0.780	1.21	0.31-4.80
Ethnicity-Hispanic	1.000	0.912	0.36-2.32	0.244	0.45	0.12-1.70
Diabetes Mellitus	0.035	2.97	1.15-7.69	0.126	2.70	0.76-9.65
Immunosuppression Modified	0.016	3.51	1.28-9.60	0.240	2.27	0.59-8.91
MMF	0.035	2.97	1.13-7.79	0.063	3.89	0.93-16.34
Hypertension	0.063	2.59	0.97-6.92			
Active Cancer	0.227	2.78	0.57-13.41			
Hyperlipidemia	0.287	1.81	0.64-5.10			
Obesity	0.791	1.23	0.44-3.45			
Metabolic Syndrome	0.090	2.66	0.89-7.98			
Tacrolimus	0.252	4.11	0.48-35.22			
Cyclosporine	0.088	0.63	0.53-0.75			
Prednisone-Low Dose	0.293	1.89	0.69-5.19			

MMF- Mycophenolate Mofetil