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Jeremey strategy to predict COVID-19 clinical outcomes. responses through commercially available IFNG release assays may yield a promising a more complicated and protracted clinical course. Evaluating cell-mediated immune an adequate IFNG mitogen response in QFT assay have worse clinical outcomes and group had a higher hospital length of stay than the other group (p-value = 0.035). When compared to patients with a negative or positive QFT. Patients in indeterminate 0.001) and requirement for renal replacement therapy (32.5% vs. 1.3%; p-value < 0.001), (25.58% vs. 0%; p-value < 0.001), requirement of pressor (48.83% vs. 14.28%; p-value < Results. Four cases were identified, all were SOT recipients. Case details are provided in Table 1. No patients required ICU level care at any point. COVID-19 treatment included 10 days of increased steroids and 36 days of corticosteroids for 3 patients, remdesivir for 2, and 1 received no treatment for COVID-19. In contrast to the typical time-course for cryptococcal infection post-SOT (median time approx. 500 days post-transplant), three patients were greater than 2 years post-transplant and were without rejection or recent changes in immunosuppression. Patient 1 was less than 6 months post liver-kidney transplant and was diagnosed at time of admission with concurrent COVID-19 and cryptococcal pneumonia. Infection was disseminated in the other 3 cases including positive blood cultures in 2 patients and cryptococcal meningitis (CM) in 2 patients. CM cases presented later following COVID-19 and had the longest delay between symptom onset (headache, neurologic symptoms) and CM diagnosis. One patient had CM 8 years prior, but had done extremely well off fluconazole for over 6 years before this recurrence. All patients are doing well at most recent follow-up evaluations.

Table 1. Summary of Cases

| Case | Type of Infection            | Time to Onset (days) | Time to Diagnosis (days) | Time to Treatment (days) | Time toDeath (days) |
|------|------------------------------|----------------------|--------------------------|--------------------------|---------------------|
| 1    | Cryptococcal meningitis      | 28                   | 31                       | 10                       | 16                  |
| 2    | Cryptococcal meningitis      | 12                   | 13                       | 0                        | 0                   |
| 3    | Cryptococcal meningitis      | 30                   | 32                       | 15                       | 20                  |
| 4    | Cryptococcal meningitis      | 15                   | 17                       | 20                       | 3                  |

Conclusion. We describe the first case series with a temporal association between SARS-CoV-2 infection and cryptococcosis. All cases were immunocompromised due to SOT. Some symptoms were attributed to post-COVID syndrome leading to significant delays in diagnosis for those patients, highlighting the importance of considering this association for at-risk patients.

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311. Impact of Non-alcoholic Fatty Liver Disease on Clinical Outcomes in Patients with COVID-19

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Session: P-14. COVID-19 Complications, Co-infections, and Clinical Outcomes

Background. Non-alcoholic fatty liver disease (NAFLD) is the most common liver disease with a prevalence up to 30%. NAFLD is strongly associated with components of metabolic syndrome, already recognized as risk factors for worse outcomes in COVID-19. However, the impact of NAFLD on COVID-19 is not well characterized. The aim of this study was to investigate a possible association between NAFLD and COVID-19 severity and outcomes.

Methods. A prospective observational study included consecutively hospitalized adult patients with severe COVID-19 at the University Hospital for Infectious Diseases in Zagreb, Croatia between March and June 2021. On admission patients were screened for fatty liver by the ultrasound and subsequently diagnosed with NAFLD according to current guidelines. Demographic, clinical and laboratory data was collected and correlated to clinical outcomes.

Results. Of the 112 patients included in the study, 77 (68.7%) had NAFLD (59.7% males; median age of 62, IQR 54-66 years). Except for higher prevalence of obesity in NAFLD group (61.0% vs 17.1%) there were no differences in other comorbidities. NAFLD group had higher inflammatory markers CRP (96, IQR 51-138 vs 59, IQR 29-99mg/L) and IL-6 (129, IQR 44-169 vs 25, IQR 8-56pg/mL). Steatosis stage showed positive correlation with BMI, waist/hip ratio, CRP, PCT, IL-6, AST, ALT, LDH and fibrinogen. Steatosis stage correlated with clinical status at the 7-category scale on admission and at days 7, 14 and 28. Patients with NAFLD had longer duration of hospitalization (9, IQR 6-15 vs 6, IQR 5-11 days, p=0.024), more frequently required noninvasive ventilation or high-flow oxygen (24.7% vs 5.7%, p=0.018) and had higher rate of pulmonary embolism (22.1% vs 5.7%, p=0.024). There was no difference in mortality. The median value for clinical status on the ordinal scale at day 7 was significantly

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310. Cryptococcal Infection Following COVID-19 infection in Solid Organ Transplant Recipients: A Case Series

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Session: P-14. COVID-19 Complications, Co-infections, and Clinical Outcomes

Methods. This is a retrospective study of patients who were admitted at our institute with COVID-19 and had a QFT done within one month of the positive SARS-CoV-2 nucleic acid amplification test result. Patient charts were analyzed for clinical course and outcomes, including in-hospital mortality (primary outcome), 90-day mortality, respiratory failure, requirement for intubation and other complications that would portend a more severe disease course.

Results. A total of 120 patient charts were analyzed, out of which 43 (35.8%) had an indeterminate QFT. All the indeterminate results were due to an inadequate mitogen response. The indeterminate QFT group had a 41.86% (18/43) in-hospital mortality vs. 9.09% (7/77) in the negative or positive QFT group (p-value < 0.001). The 90-day mortality was similar between the two groups. Patients with indeterminate QFT also had a higher incidence of respiratory failure (97.7% vs. 75.3%; p-value = 0.020), requirement for mechanical ventilation (55.8% vs. 23.4%; p-value < 0.001), requirement of ECMO (25.58% vs. 0%; p-value < 0.001), requirement of pressor (48.83% vs. 14.28%; p-value < 0.001) and requirement for renal replacement therapy (32.5% vs. 13.3%; p-value < 0.001), when compared to patients with a negative or positive QFT. Patients in indeterminate group had a higher hospital length of stay than the other group (p-value = 0.035).

Conclusion. Our study indicates that patients with COVID-19 who fail to mount an adequate IFNG mitogen response in QFT assay have worse clinical outcomes and a more complicated and protracted clinical course. Evaluating cell-mediated immune responses through commercially available IFNG release assays may yield a promising strategy to predict COVID-19 clinical outcomes.

Disclosures. All Authors: No reported disclosures
The mean age of the matched cohort was 66.9 years. Expired patients We conducted a retrospective cohort study of hospitalized in our matched patients with a large Hispanic population. These risk factors will require fur
p = .001), absolute lymphocyte percent (≤ 12%) (OR = 1.68, p = .001) and procal
1.135 (OR = 1.79, P = 0.007), LDH(U/L) > 465 (OR = 2.18, P = 0.001), systolic
(1IU/L)
We propensity matched 245 expired patients with a concurrent cohort of dis
4.001), and creatinin
7.29-24.9), NAFLD (OR 3.9, 1.1-20.5) and pulmonary embolism (OR 10.4, 2.7-48.3) associated with adverse outcomes at day 28.

The figure shows the patients’ clinical status as assessed on the seven-category ordinal scale on admission and at day 7, 14 and 28, according to the presence of NAFLD. Categories on the ordinal scale were as follows: 1. discharged or ready for discharge; 2. hospitalization in a non-intensive care unit (ICU) without supplemental oxygen; 3. non-ICU hospitalization with supplemental oxygen; 4. ICU or non-ICU hospitalization with noninvasive ventilation or high-flow oxygen; 5. ICU hospitalization with mechanical ventilation; 6. ICU hospitalization with invasive mechanical ventilation or mechanical ventilation and additional organ support; and 7, death. Conclusion. Our data suggests that NAFLD is associated with COVID-19 severity and might be linked to adverse outcomes in hospitalized patients.

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312. Clinical Attributes and Risk Factors for In- Hospital Mortality among Covid-19 Patients in a Community Hospital Setting: A Propensity Matched Analysis Karthik Seetharaman, MD; Pranita Bhat, MD; Keladh Kumar, MD; Thinaz Wai, MD; Dr. Vamsi Yenugadhati, MD; Bhargav Desai, MD; Christina Tamsukhin, MD; Dr. Sharovi Jalad, MD; Diego Castellon, MD; Olga Badem, MD; Tanveer Mir, MD; Sadasipet Vargas, MD; FNU Poonam, MD; Blanca Vargas, MD; Juan Carlos Martinez, MD; Shrinath Pathakal, PharmD; Clavalle Aquande, MBA; Laurie Ward, MD; Zeeyar Thet, MD; Maxine Orris, MD; Ngozi Kana, MD; Upul Bhatt, MD; Pervez Mir, MD; Juan Carlos Fuentes-Rosales, MD; JD, MPH, FACP, FHIM; Youn-sung Jung, MD; Joseph Guadalupe, MD; Pravin Bhat, MD; Himendra Prabhu, MD; Preetak Asti, MD; Preety Chawla, MD; Gopi Ponukollu, MD; Carlos Gomez, BS; Jillian M. Shah, MD; Wycloff Heights Medical Center, Brooklyn, New York; Wycloff Heigh Medical Center, Brooklyn, NY

Session: P-14. COVID-19 Complications, Co-infections, and Clinical Outcomes

Background. New York City emerged as the Epicenter for Covid-19 because of novel Coronavirus SARS-CoV-2 soon after it was declared a Global Pandemic in early 2020 by the WHO. Covid-19 presents with a wide spectrum of illness from asymptomatic to severe respiratory failure, shock, multiorgan failure and death. Although the overall fatality rate is low, there is significant mortality among hospitalized patients. There is limited information exploring the impact of Covid-19 in community hospital settings in ethnically diverse populations. We aimed to identify risk factors for Covid-19 mortality in our institution.

Methods. We conducted a retrospective cohort study of hospitalized in our institution for Covid 19 from March 1st to June 21st 2020. It comprised of 425 discharged patients and 245 expired patients. Information was extracted from our EMR which included demographics, presenting symptoms, and laboratory data. We propensity matched 245 expired patients with a concurrent cohort of discharged patients. Statistically significant covariates were applied in matching, which included age, gender, race, body mass index (BMI), diabetes mellitus, and hypertension. The admission clinical attributes and laboratory parameters and outcomes were analyzed.

Results. The mean age of the matched cohort was 66.9 years. Expired patients had a higher incidence of dyspnea (P < 0.001) and headache (P < 0.001). In addition, expired patients had elevated CRP- hs (mg/dl) ≥ 123 (< 0.001), SGOT or AST (IU/L) ≥ 54 (p < 0.001), SGPT or ALT (IU/L) ≥ 41 (p < 0.001), and creatinin (mg/dl) ≥ 1.135 (0.001), lower WBC counts (k/uL) ≥ 8.42 (0.009). Furthermore, on multivariate logistic regression, dyspnea (OR = 2.56, P < 0.001), creatinin ≥ 1.135 (OR = 1.79, P = 0.007), LDH/1H/U ≥ 465 (OR = 2.18, P = 0.001), systolic blood pressure < 90 mm Hg (OR = 4.28, p = .02), respiratory rate ≥ 24 (OR = 2.88, p = 0.001), absolute lymphocyte percent (≥ 12%) (OR = 1.68, p = 0.001) and procalcitonin (ng/ml) ≥ 0.305 (OR = 1.71, P = 0.027) predicted in- hospital mortality in all matched patients.

Conclusion. Our case series provides admission clinical characteristics and laboratory parameters that predict in- hospital mortality in propensity Covid 19 matched patients with a large Hispanic population. These risk factors will require further

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313. Host Protein Biomarkers Predicting Severity of Lung Damage due to COVID-19
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Session: P-14. COVID-19 Complications, Co-infections, and Clinical Outcomes

Background. Biomarkers to predict the severity of lung damage due to COVID-19 are urgently needed to inform management and treatment decisions. Our objective was to investigate the predictive value of host proteins for worsening respiratory failure in one of the by COVID-19 most affected and diverse patient populations in the US.

Methods. We performed a prospective single-center cross-sectional study of 34 adult patients admitted to Montefiore Medical Center in the Bronx, New York, for respiratory symptoms due to PCR-confirmed COVID-19. Exclusion criteria were age < 21, history of prior SARS-CoV-2 infection, and/or underlying severe chronic lung diseases requiring home O2 and/or high dose steroids. We stratified and com- pared patients by whether they developed worsening respiratory failure, necessitating transfer to the intensive care unit (ICU) during their hospital stay. Using a custom Luminex Assay, we measured hospital admission serum concentrations of 8 host pro- teins, representing respiratory-associated epithelial (RAGE, SP-D, CC16), endothelial (Ang-2, vWF), and immune pathways (S100A12, ICAM-1, VCAM-1).

Results. Except for race and WHO COVID-19 scores, demographics, co-morbidities, symptoms, and symptom duration were not statistically significantly different between patients requiring transfer to the ICU (n=15) and non-ICU patients (n=19). Higher log-transformed levels for 5/8 proteins (S100A12, ICAM-1, Ang-2, RAGE, SP-D) showed significant or marginally significant increased cause-specific hazard for ICU transfer (p=0.15). Estimated cumulative incidence functions further showed significant or near significant increased risk for ICU transfer for patients with above the median values of S100A12 or ICAM-1 (p=0.013), Ang-2 (p=0.056) and RAGE (p=0.077), respectively (Figure 1). Host proteins predicting need for ICU transfer did not correlate strongly with other clinical laboratory markers for COVID-19 severity (CRP, LDH, D-Dimer, Fibronogen, Ferritin).

Figure 1. Patients with above median levels of host protein markers S100A12, ICAM-1, Ang-2, and RAGE have a significantly or near significantly increased risk for severe respiratory failure requiring transfer to the ICU.

Comparison of estimated cumulative incidence at 7 days post admission for host protein markers above and below median levels for (A) S10012 (median 96,675 pg/ml); (B) ICAM-1 (median 1,192,277 pg/ml); (C) Ang-2 (median 3463 pg/ml); (D) RAGE (median 6356 pg/ml); and (E) SP-D (median 11,832 pg/ml).

Conclusion. These results suggest that host proteins have additional predictive value for the severity of COVID-19-associated lung damage at time of presentation to the hospital.

Disclosures. Inessa Gendilina, Nothing to disclose

314. Six-Month Post-Acute Sequelae of COVID-19: High Self-Reported Morbidity among Women and Younger Adults
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Session: P-14. COVID-19 Complications, Co-infections, and Clinical Outcomes

Background. Long term sequelae across multiple medical domains, including the respiratory, psychiatric, and neurocognitive have been reported after COVID-19. Studying evaluating the impact of this symptom burden, however, is lacking. We aimed to describe the self-reported occurrence of symptoms and their effect on patient func-tioning six months after their acute hospitalization for COVID-19.

Methods. From a historical cohort study of patients hospitalized for COVID-19 between March 8, and June 14, 2020, we identified patients discharged home. The purpose of the study was explained, and they were asked to consent to a telephone questionnaire. We used a modified version of a previously validated general symptom questionnaire (GSQ-36) to assess multi-system symptom burden. The Patient Health Questionnaire-2 (PHQ-2) was used to screen for major depression.