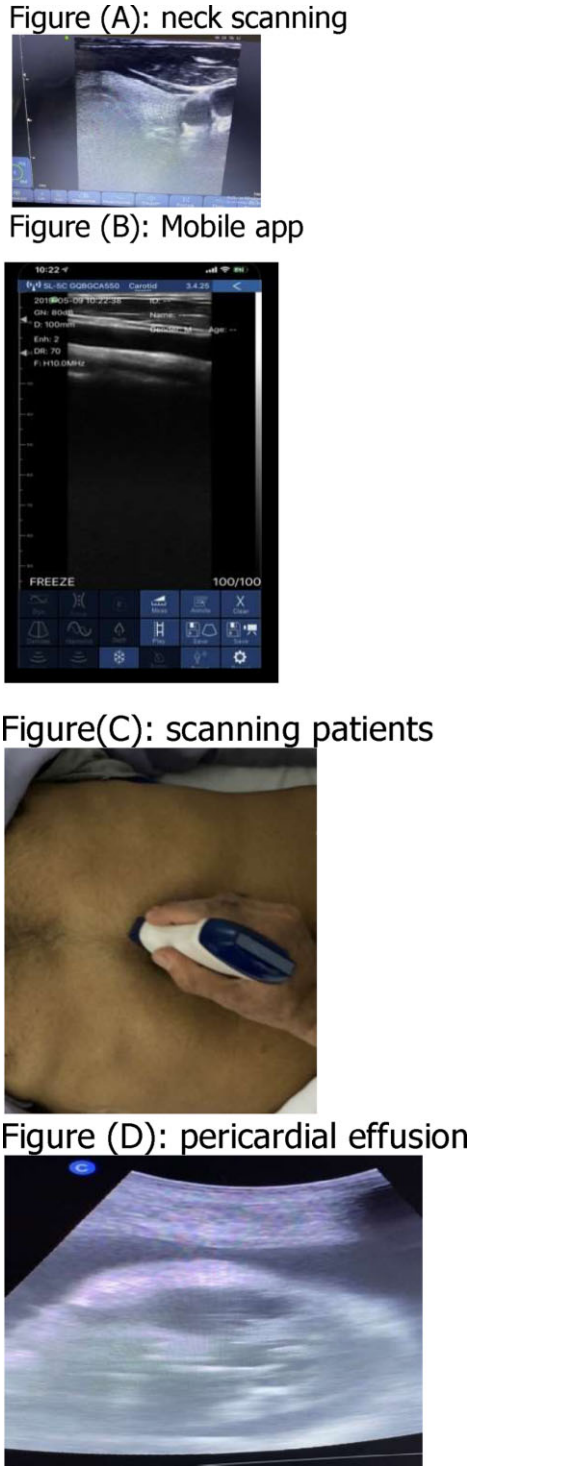

FIGURE 1: (**A**) Neck scanning. (**B**) Mobile app. (**C**) Scanning patients. (**D**) Pericardial effusion.

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MO825 **LOW HIGH-DENSITY LIPOPROTEIN LEVEL PREDICTS COVID-19 SEVERITY AND MORTALITY IN HAEMODIALYSIS PATIENTS**

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BACKGROUND AND AIMS: Several recent studies have demonstrated the association between low high-density lipoprotein cholesterol (HDL-C) levels and poor outcomes in COVID-19-infected patients. However, there is a general lack of research in this field in the haemodialysis population. Therefore, in the present study, we retrospectively examined the association between HDL-C levels and the risk of developing severe outcomes of COVID-19 infection in haemodialysis (HD) patients.
METHOD: A total of 428 HD patients aged 55 (44–64) years and a dialysis vintage of 44 (21–76.6) months were enrolled in this multicentre retrospective cohort study between March 2020 and September 2021. Baseline HDL-C levels were obtained from electronic health records of the patients in the dialysis centres. (The last measurements were carried out before the COVID-19 onset.) Severe COVID-19-associated pneumonia was estimated based on chest computed tomography (CT) findings of pulmonary involvement and assessed using the following scoring system: (1) indicating <5% involvement, (2) indicating 5%–25% involvement, (3) indicating 26%–49% involvement, (4) indicating 50%–75% involvement and (5) indicating more >75% involvement. The primary and the secondary endpoints were COVID-19-related hospitalization and death, respectively.

The data were presented as the median and the interquartile ranges [Me (Q25–Q75)] and compared using the Kruskal–Wallis test. The Spearmen correlation test was used to assess the association between HDL-C and other markers. The multivariate logistic regression and the receiver operating characteristic (ROC) analyses were performed to evaluate the ability of HDL-C for predicting the severity of COVID-19 infection.
RESULTS: Among 428 enrolled patients, there were 142 (33.2%) patients infected with COVID-19 and 286 (66.8%) patients who had a negative result in COVID-19 PCR tests. A total of 108 (76%) patients of 142 COVID-19 positive patients did not require any oxygen support; 40 patients (28%) were hospitalized, 34 patients (24%) needed oxygen supplements and 16 patients (11.3%) died. The chest CT findings were scored from 2 to 4 in almost all HD patients (99.3%), and only 2 patients had 75% pulmonary involvement. The baseline HDL-C level was significantly lower in the patients with severe COVID-19-associated pneumonia compared with the patients with mild and moderate pneumonia scores (Fig. 1). Moreover, HDL-C was negatively correlated with serum C-reactive protein (CRP) ($r = -0.42$; $P = 0.0002$) and D-dimer ($r = -0.31$; $P = 0.001$) levels.

In the multivariate logistic regression analysis adjusted for age, diabetes, CRP and D-dimer, HDL-C was found to be associated with COVID-19-related hospitalization {OR: 2.4, [95% confidence interval (95% CI) 1.19–4.7]; $P = 0.001$} and deaths (OR: 3.1, 95% CI 1.28–5.6; $P = 0.008$) in the HD patients. The ROC curve analysis demonstrated that the most appropriate cut-off point for baseline HDL-C level for

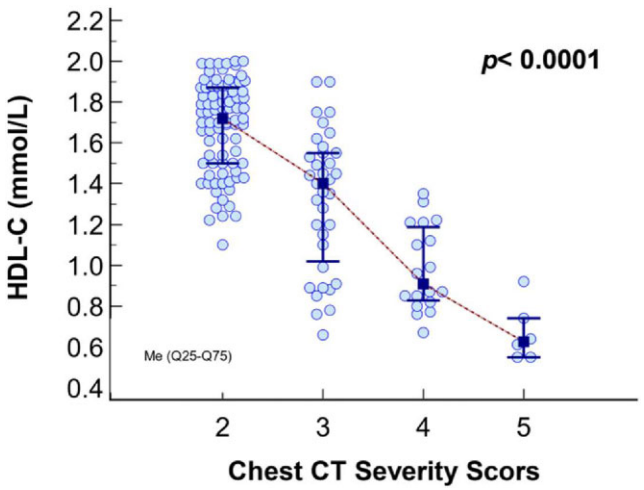

FIGURE 1: HDL-C levels according to the chest CT severity scores in the COVID-19 infected HD patients (the Kruskal–Wallis test).

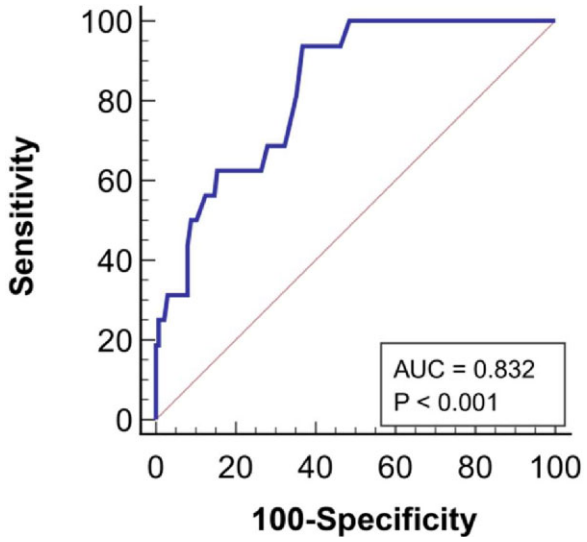

FIGURE 2: The ROC curve for the cut-off value of HDL-C level for predicting severe COVID-19 prognosis in the HD patients.

predicting severe COVID-19 prognosis in the HD patients was ≤1.2 2 mmol/L with a sensitivity of 93.7% and a specificity of 63.2%. The area under the ROC curve was 0.83 (95% CI 0.76–0.89; $P < 0.0001$).

CONCLUSION: HDL-C level ≤1.22 mmol/L was independently associated with a severe COVID-19 prognosis in the cohort of our HD patients. Further research with a greater cohort is needed to confirm this preliminary evidence and validate HDL-C level as a predictive biomarker for COVID-19 severity and mortality in HD patients.

MO826 LONG-TERM IMPACT OF COVID-19 PANDEMIC ON HD ADEQUACY AND PATIENT CARE IN ALEXANDRIA, EGYPT: A MULTI-CENTRE STUDY

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BACKGROUND AND AIMS: The COVID-19 pandemic represents a special threat to HD patients not only for high viral morbidity and mortality, but also it can affect quality of care and result in a high psychological and economic burden. HD patients have to stay in close contact during HD sessions, so many patients may miss HD sessions for fear of infection. Some HD units decrease the duration of HD sessions to apply screening and disinfection protocols. Shortages of health professionals who are debuted in isolation hospitals and quarantined because of illness or exposure to COVID-19 cases can affect the quality of provided care. Routine follow-up of comorbidities, labs and elective procedures were postponed. Relying on public transportation during lockdown periods affected accessibility to HD units, outpatient and inpatient services. The long-term impact of COVID-19 on HD patients' morbidity and mortality is still unknown. In this context, we conducted a retrospective study to compare parameters of HD adequacy and patient care 10 months before and during the first 10 months of the COVID-19 pandemic.

METHOD: This is a retrospective cohort including all HD patients from 5 HD units in Alexandria, Egypt, including El Mowasah University Hospital, Alexandria University Student Hospital, Smouha University Hospital, Abu-Quir General Hospital and Kidney and Urology Centre. Relevant variables during the period from June 2019 to December 2020 were collected.

RESULTS: A total of 388 HD patients were included. There was a significant difference in the total number of missed HD sessions for each patient before and during the pandemic ($P = 0.019$). Two peaks were observed the first was during months of lockdown (April–June) and the second was in September 2020, which coincided with the peak of the second wave of COVID-19 in Egypt.

There was a significant decrease in the mean number of HD patients/one working nurse staff during the pandemic ($P = <0.001$). A total of 11 patients had vascular access complications before the pandemic (2.8%) and 19 patients during the pandemic (4.9%). There was a significant increase in mean IDWG during the pandemic ($P < 0.001$).

Patients who reported difficult accessibility to the HD unit during lockdown period ($n = 23$, 6%) had lower HD adequacy as measured by URR (and Kt/V) as well as hemoglobin levels in the first 3 months of the pandemic (during lockdown) in comparison to the following 3 months and missed more HD sessions ($P = 0.001$).

Comparing lab parameters for all patients before and during the pandemic revealed a significant decrease in URR% ($P < 0.001$), hemoglobin level ($P < 0.001$), calcium level ($P = 0.005$) and albumin level ($P < 0.001$) and an increase in phosphorus level ($P = 0.033$) during the pandemic.

COVID-19 infection represented the most common cause for hospitalization during the pandemic period (45.5%) followed by CV events (13.6%) and sepsis (12.9%). There was a significant decrease in the rate of surgical and elective interventions ($P = 0.001$) and a significant increase in the median days of hospital stay during the pandemic ($P = 0.003$). In the 10 months before the pandemic, 23 cases died in the 5 units, while during the first 10 months of the pandemic, 29 cases died, 24 were COVID-19 related (83%) and 5 were non-COVID-19 related (17%).

CONCLUSION: Beyond the viral morbidity and mortality of COVID-19, the quality of care of HD patients was affected significantly by the pandemic.

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MO827 CLINICAL CHARACTERIZATION OF OLDER PEOPLE ON CHRONIC HEMODIALYSIS NEPHROCARE-CHILE 2020–2021

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BACKGROUND AND AIMS: The Chilean population has experienced an accelerated demographic aging, expecting that by the year 2050, older people (60 years and over) [1] will reach 31.6% of the country's population [2]. In Chile, patients >60 years old on dialysis represent 53.6% of the total population with renal replacement therapy [3]. The objective of this work was to study the population of older people cared for in the NephroCare-Chile centers.

METHOD: A retrospective descriptive study, where the demographic and clinical characteristics of patients aged 60 years and over with chronic kidney disease on hemodialysis were analyzed, during the period January 2020–November 2021 in NephroCare-Chile dialysis network, distributed in 64 clinics, with information registered in Clinical Database- EuCliD [4]. Descriptive, association and/or dependency analyzes, and survival analyzes were performed using the Kaplan–Meier method, all this with Stata software.

RESULTS: A total of 6010 patients aged 60 years and over were studied, representing 60.8% of the total population attended in NephroCare-Chile for the period under study, who presented an average age of admission to dialysis of 66.2 ± 8.9 years, 57.6% of whom were men. Of this group, 5.3% were older than or equal to 85 years, and their average age at admission to dialysis was 82.0 ± 4.7 years, with statistically significant differences compared with the younger group (65.3 ± 8.2 years old). Of the older people studied (60 and over years), 52.5% were diabetic, 68% were hypertensive, 18.5% had malnutrition and 27.7% were at risk of malnutrition. At the end of the study period, the active vascular accesses were the Arteriovenous Fistula (54.1%) and Tunnelized Catheter (38.6%). A total of 82.7% of the cases had Albuminemia ≥3.5 g/dL, 67.6% had Hemoglobin levels ≥10 g/dL. Urea clearance estimated by Kt/V Single Pool revealed that 54.8% achieved Kt/Vsp ≥ 1.4. At the end of the study, 24% of the patients seen were deceased, at an average age of 72.4 ± 7.5 years. Of the patients seen who were older than or equal to 85 years, 40.0% were diabetic compared with the younger group (53.2%) ($P < 0.05$), 67.9% were hypertensive and 45.2% presented compromised nutritional status, the albumin level was <4 g/dL in 67.8%. The most frequent active vascular accesses in this group were the Tunnelized Catheter and the Arteriovenous Fistula (50.9% and 45.0%, respectively). Patients older than 85 years had lower serum levels of iPTH, Albumin and phosphorus compared with the younger group ($P < 0.05$). Mortality at the end of the study was 36.9% for the group older than 85 years, while for the younger group it was 23.5% ($P < 0.05$). The median overall survival of the patients seen in the study period was 155 months, regardless of their age at admission to hemodialysis. For those patients who were admitted between the ages of 60 and 84, their median survival was 115 months, while those patients who were admitted after the age of 85 had a survival