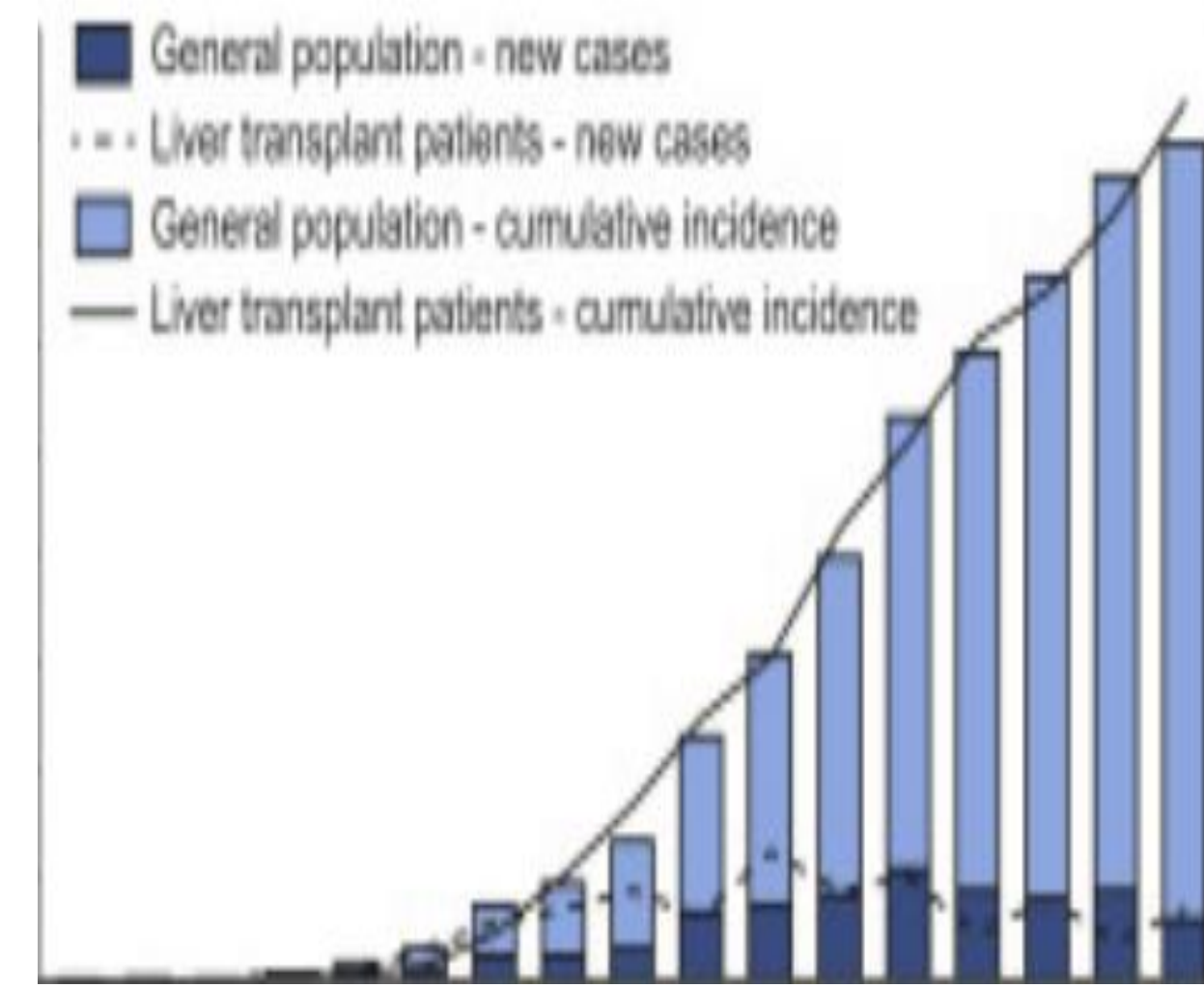




## Introduction

- COVID-19 disease declared a pandemic by the World Health Organization (WHO) in March 2020.



- Some studies have indicated that Solid Organ Transplant (SOT) patients may have increased morbidity and mortality while others showed no difference.
- Our study aims to investigate patients' characteristics, disease course, management of immunosuppression and associated mortality in our SOT patient population.

## Methods

- We conducted a retrospective cohort study of all SOT recipients who were admitted to our transplant center from March 2020 to April 2021 with COVID 19 infection.
- Data was collected from the electronic medical records after obtaining Institutional Review Board approval.

## Results

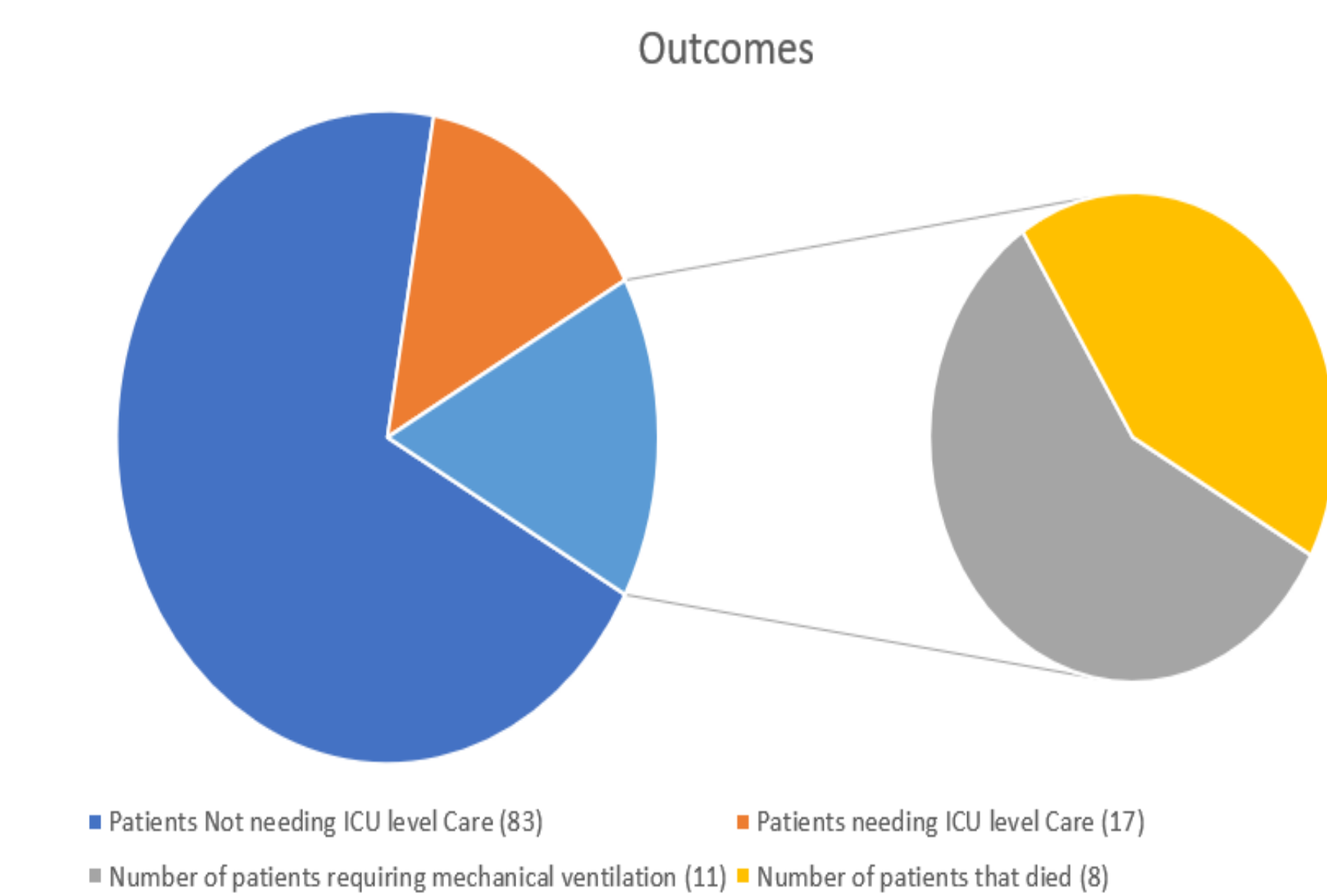
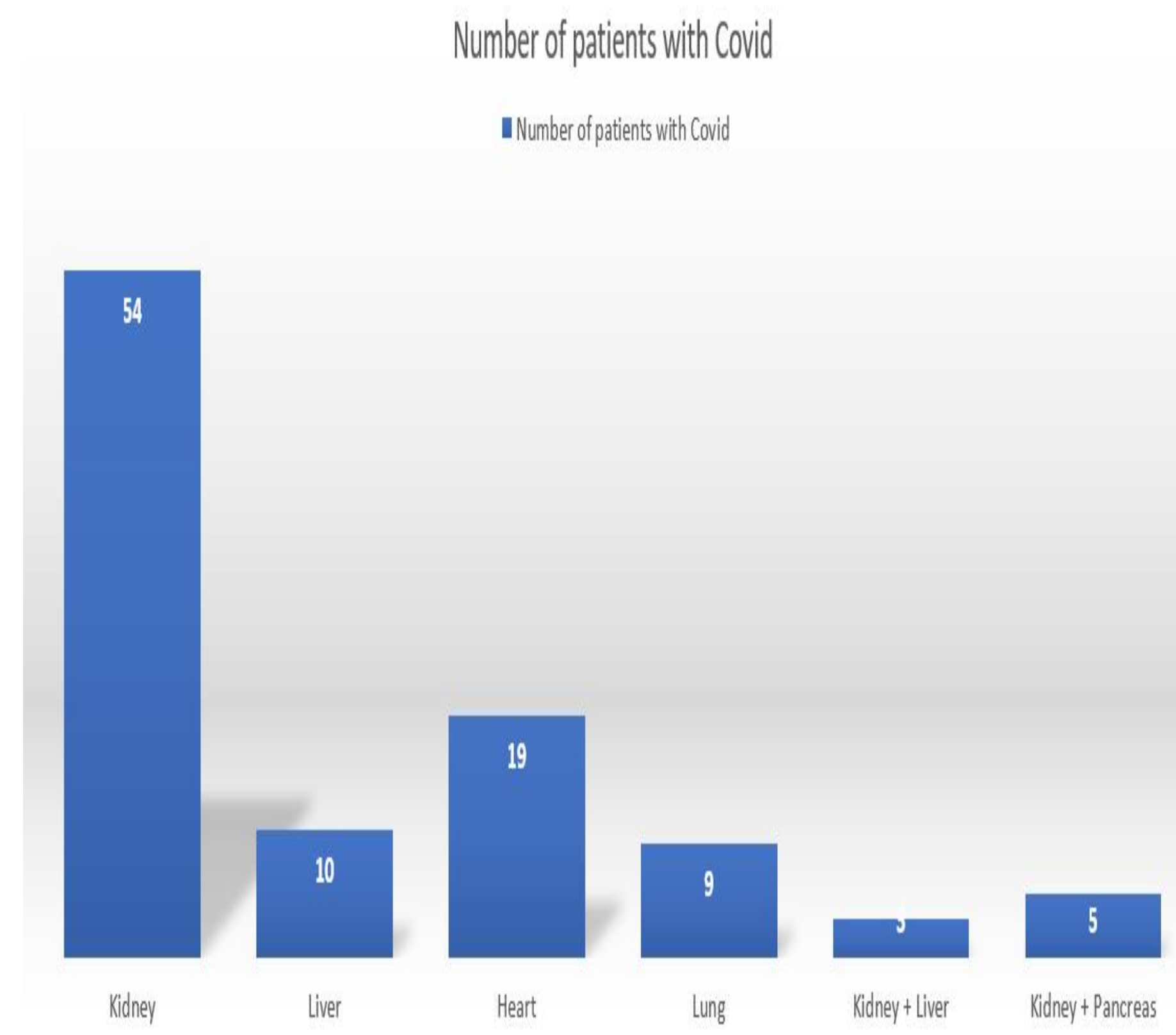
- Seventy-eight patients had at least one of the associated co-morbidities of chronic diseases like diabetes, hypertension, heart/kidney disease, cancer, cirrhosis and obesity.

## Results

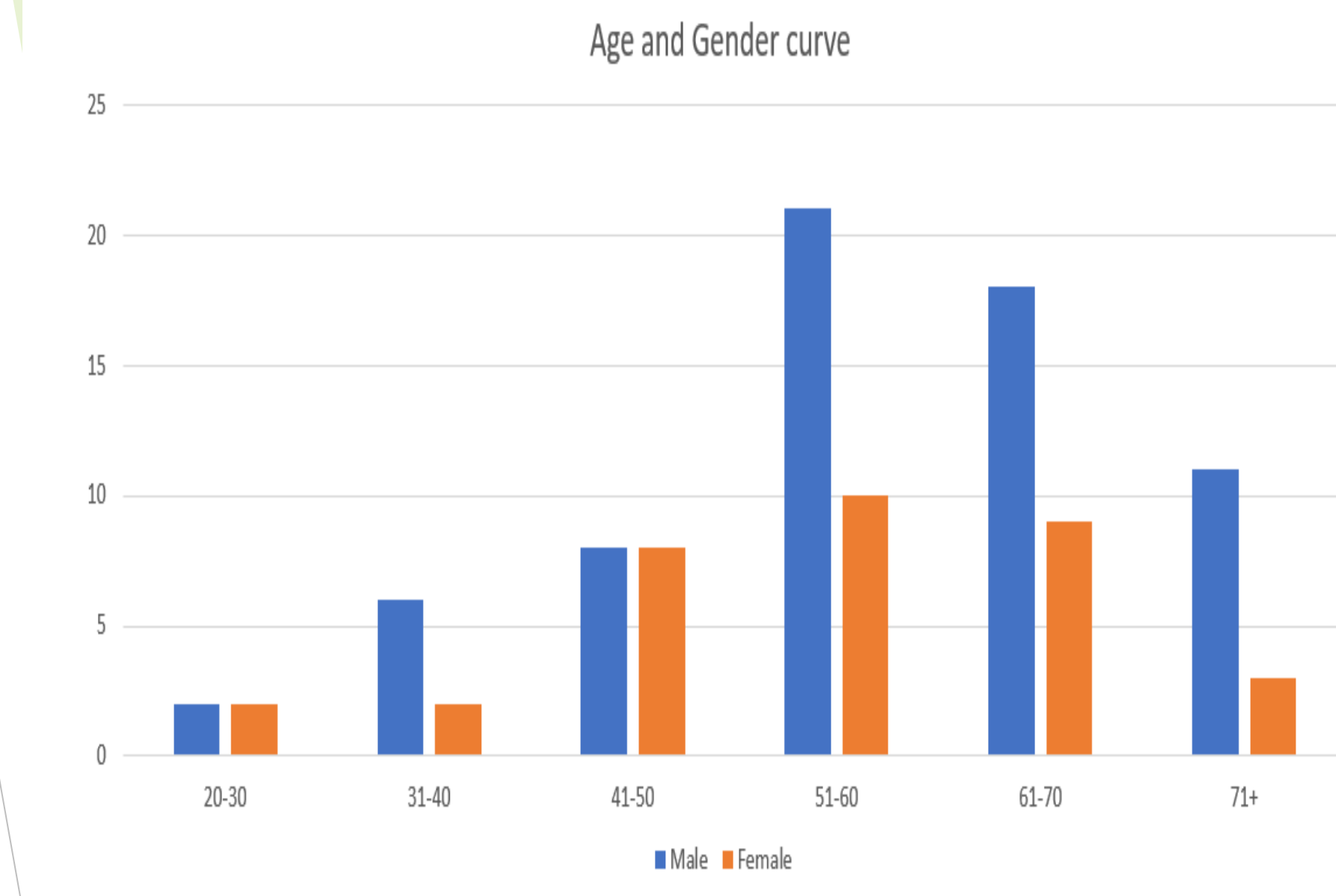
Characteristics of the Patients:	
Mean Age (in years)	56.38 (43.45 - 69.31)
Male sex – number (%)	88 (65.2%)
Female sex – number (%)	47 (34.8%)
Type of Transplants – number (%)	
Kidney	73 (54.1%)
Liver	14 (10.4%)
Heart	24 (17.8%)
Lung	11 (8.1%)
Kidney and Liver	4 (2.9%)
Kidney and Pancreas	9 (6.7%)
Average duration from transplant to positive test (in months)	68.28 (0 - 137.76)
Symptom on Presentation – number (%)	
Fever	56 (41.5%)
Cough	63 (46.7%)
Shortness of Breath	51 (37.8%)
Gastrointestinal symptoms (diarrhea, nausea, vomiting)	53 (39.3%)
Changes present in Chest X-Ray or Chest CT scan – number (%)	57 (42.2%)
Supplemental Oxygen needed during hospitalization – number (%)	38 (28.1%)
ICU Admission – number (%)	19 (14.1%)
Mechanical Ventilation needed – number (%)	12 (8.9%)
Remdesivir Use – number (%)	28 (20.7%)
Dexamethasone/ Corticosteroids Use – number (%)	41 (30.4%)
Other medications use (Convalescent Plasma/ Tocilizumab/ Hydroxychloroquine/ Bamlanivimab) – number (%)	52 (38.5%)
Study patients that survived – number (%)	124 (91.9%)
Study patients that died – number (%)	11 (8.1%)
Any change in the therapy for transplant graft – number (%)	42 (31.1%)
Transplant Graft failure/ rejection – number (%)	3 (2.2%)

- None received ECMO (Extra Corporeal Membrane Oxygenation) support.
- Ten patients died from COVID-19 infection, one had died at another hospital.

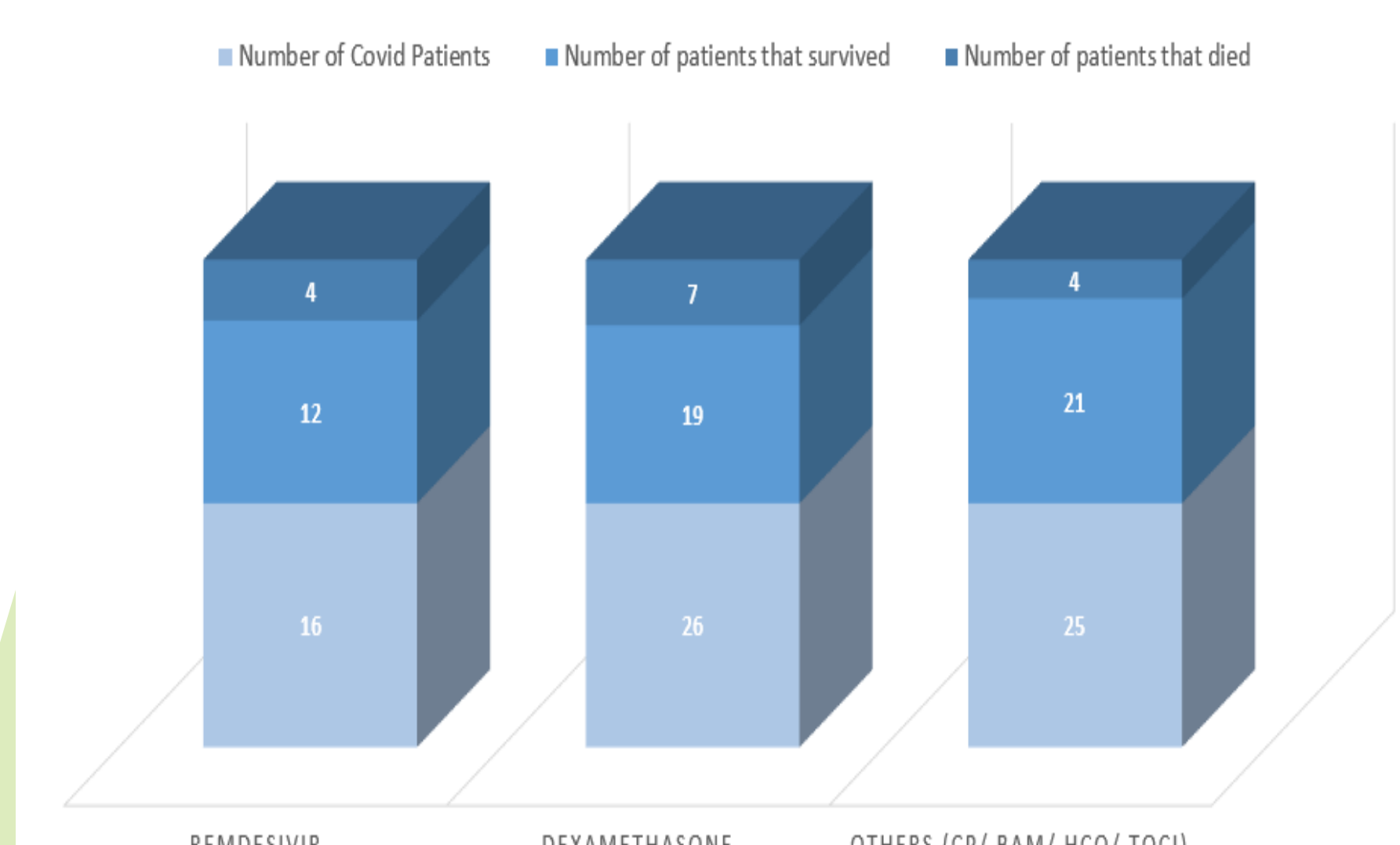
## Results



Average age at diagnosis = 56.4 (SD 12.6)



### COVID THERAPIES AND OUTCOME



## Conclusions

- Our study showed a high mortality rate from Covid infection and its complications in SOT patients.
- Treatment with Remdesivir and Corticosteroids improved the overall mortality rate but had no benefit in patients with critical illness requiring ICU level care.
- Major limitation of the study was COVID vaccination information was not included since the study was initiated prior to introduction of vaccines.
- More studies with larger sample size and vaccine data need to be conducted to accurately determine the outcome of COVID-19 infection in this patient population.