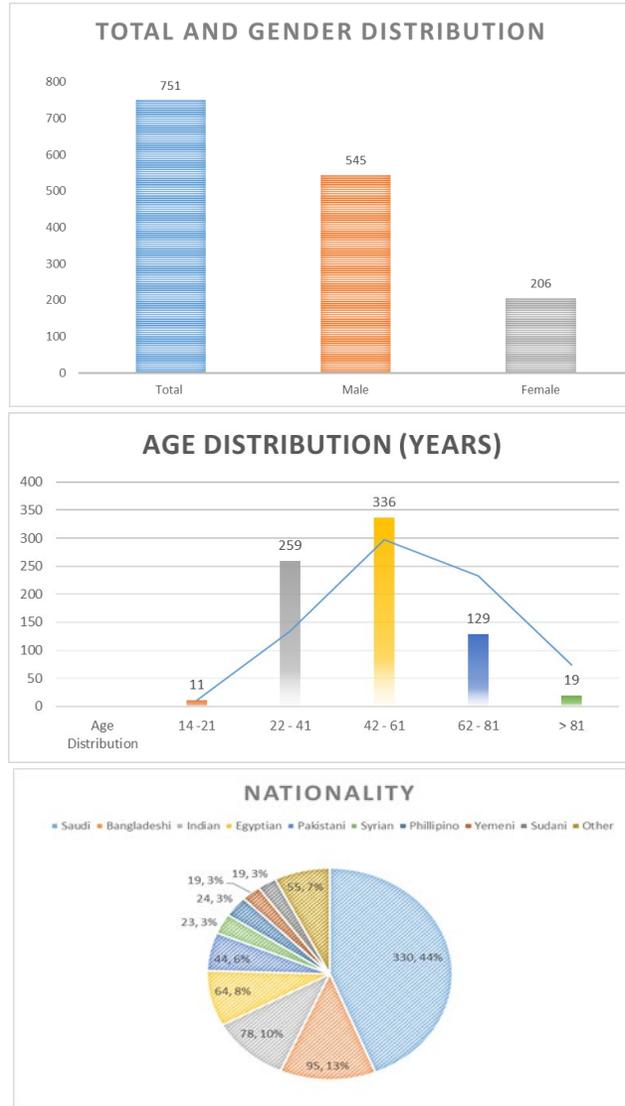


Background and Aims

An outbreak of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), causing the coronavirus disease 2019 (COVID-19), started in December 2019. Almost a year later, we seem to be at the brink of an imminent second wave. Since it was declared a pandemic by the World Health Organization (WHO) in March 2020, it infected more than 153 million people and led to the death of 3.3 million others. It is estimated that people with cardiovascular risk factors are more prone for mortality and intubation. especially obesity, and his is especially true in Saudi Arabia and the region of Hail, where morbid obesity (BMI >30) is at 33.6% of the population. The absence of an effective treatment other than vaccination, has led clinicians in the beginning to redirect drugs that are known to be effective for other medical conditions to its treatment, such as hydroxychloroquine (HCQ)

Our aim is to establish an epidemiological link for our population use of HCQ and elevated QTc prolongation, according to our therapeutic protocol



Methods

A retrospective cohort study of 753 patients admitted as positive COVID 19 patients, from April 1, 2020, to July 31, 2020, covering a period of 4 months.

We then categorized the patient in cohorts according to the existence of diabetes melitus or not and categorized them according to their BMI index. We then correlated using statistical tool analysis - SPSS statistics tool - these groups and QTc prolongation

Results

Hydroxychloroquine was not associated with QT prolongation or cardiac arrhythmia. Significant correlation between BMI and days of ICU stay

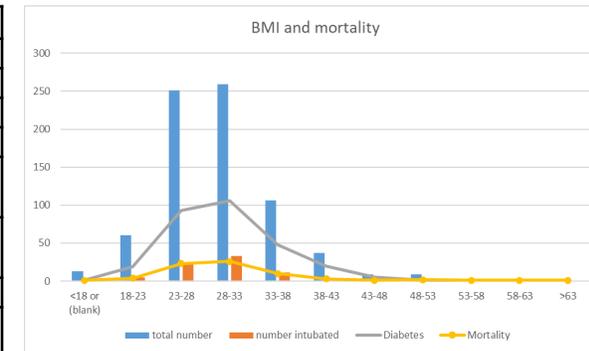
Factor	Control	HCQ
Number	405	348
Mortality	58 (14%)	14 (4%)
Intubation	67 (16%)	18 (5%)
ICU length of stay (median)	16 (± 5.25 days)	13 (± 5.11 days)
Length of stay (median)	24 (± 5.65 days)	17 (± 5.41 days)
Readmissions	20 (5%)	14 (4%)
QTc prolongation (>440 ms)	19 (5%)	14 (4%)

Discussion

The surprising result was the insignificant association between QT interval prolongation and the use of HCQ. Most studies showed frequent prolongation of the QT segment. Our result can be explained by the local protocol used in our hospital, as daily ECG was done for all patients on HCQ. The local protocol suggested withholding HCQ once QT exceed 440 ms and can then be restarted once QT has decreased. arrhythmia or QT prolongation were rarely prescribed HCQ.

Conclusions

HCQ had a safe use according to our protocol



- Giudicessi JR, Noseworthy PA, Friedman PA, Ackerman MJ. Urgent guidance for navigating and circumventing the QTc-prolonging and torsadogenic potential of possible pharmacotherapies for coronavirus disease 19 (COVID-19). Mayo Clin Proc 2020
- Horby P, Mafham M, Linsell L, et al. Effect of hydroxychloroquine in hospitalized patients with covid-19. N Engl J Med. 2020;1:2.