COMPARATIVE STUDY BETWEEN TIXAGEVIMAB/CILGAVIMAB AND SOTROVIMAB IN PATIENTS WITH COVID-19: A MONOCENTRIC EXPERIENCE AT UNIVERSITY HOSPITAL

L.A. FIORITO [1], N. PERROTTA [1], R. VESCOVO [1], R. GENTILE [1], G. CASINI [1], G. POLITO [1], E.M. PROLI [1].
[1] POLICLINICO UMBERTO I, PHARMACY, ROME, ITALY.

Introduction

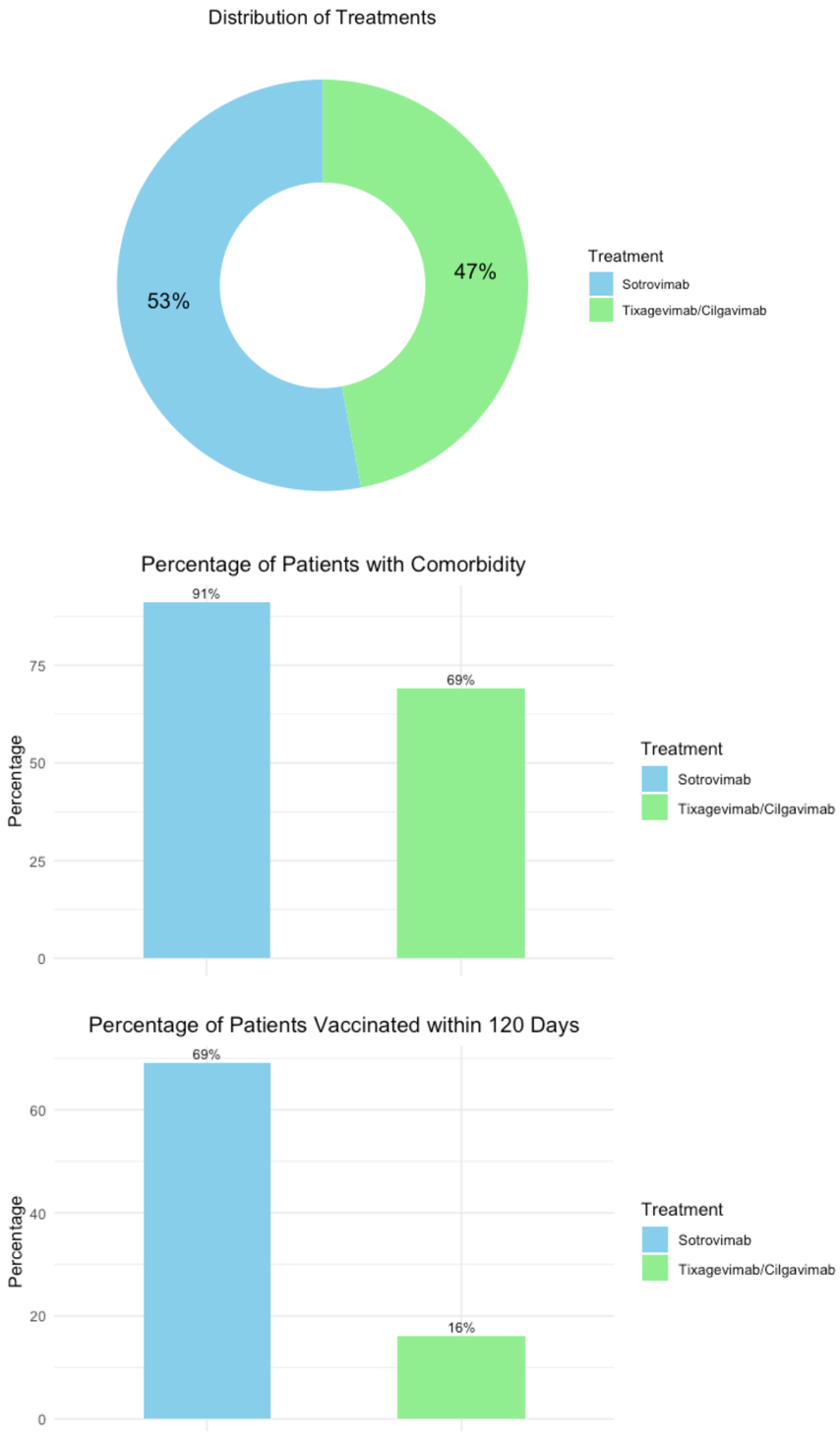
Tixagevimab/cilgavimab and sotrovimab are only monoclonal antibodies (Mabs) recommended against recent variants neutralising SARS-CoV-2. These Mabs have been effective in reducing hospitalisation and mortality rates in outpatients diagnosed with mild to moderate COVID-19. However, the emergence of new SARS-CoV-2 subvariants (BA.2.75; BA.5; XBB.1.5) may change their efficacy.

Aim and Objectives

The objective of this study was to evaluate the effectiviness of both Mabs against recent variants of Covid-19 in terms of reduction of duration of virological clearance, worsening of symptoms and mortality.

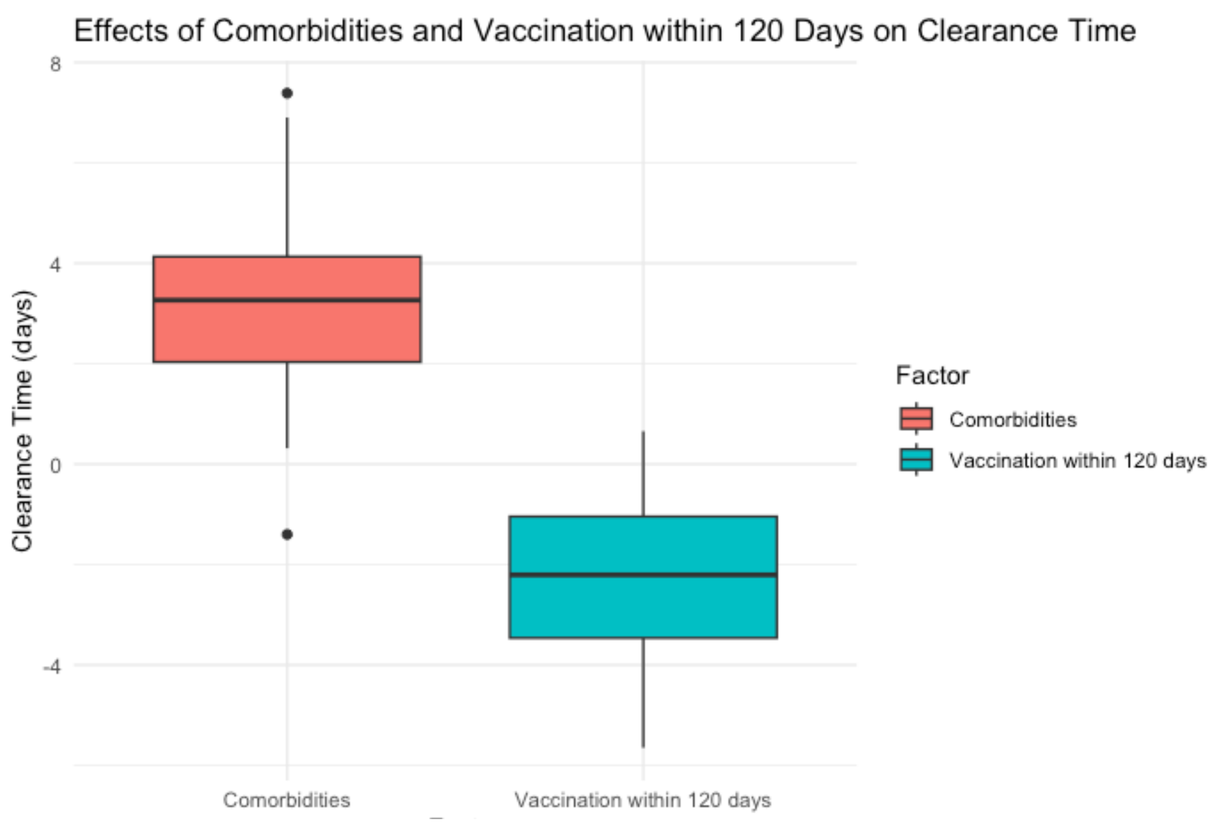
Material and methods

An observational, retrospective study was conducted, which included all eligible patients who received tixagevimab/cilgavimab 600mg and sotrovimab 500mg from September 2022 to May 2023. Clinical data were recorded through an electronic prescription system.
Univariate and multivariate analyses were carried out to evaluate the impact of the Mabs on study outcomes. R software was used for statistical analyses.



Results

A total of 284 patients were examined, 150 (53%) have received sotrovimab and 134 (47%) had received tixagevimab/cilgavimab. Sotrovimab group had a median age of 62 years (range,18-99), while tixagevimab/cilgavimab group had a median age of 69 years (range 26-97).
In sotrovimab group, 82% of patients were vaccinated (69% of these within 120 days) and comorbidity was 91%. In tixagevimab/cilgavimab group, 97% of patients were vaccinated (16% of these within 120 days) and comorbidity was 69%. Data showed that the patients administrated with tixagevimab/cilgavimab exhibited a significant reduction in clearance time compared to those patients received sotrovimab (Beta=-4.8days,95% CI:-7.0,-2.7,p<0.001). Furthermore, virological clearance's time was increased by comorbidities (Beta=3.0days,95%CI:0.67,5.3,p=0.01) and it was decreased in patients who had received the vaccine within the last 120 days (Beta=-2.3days,95%CI:-4.4,-0.21,p=0.032). It was observed that 2.2% of patients in sotrovimab group experienced a worsening of symptoms with no recorded deaths, whereas tixagevimab/cilgavimab group showed a worsening in 9.9% of patients, resulting in 3.4% deaths. However, logistic multivariate analysis was not statistically significant.
Conclusion and relevance
Our findings suggest that the administration of tixagevimab/cilgavimab, may be more effective than sotrovimab in reducing the clearance time in the patients affected of COVID-19. However, there wasn't a marked reduction between two Mabs concerning worsening and mortality rates.



Conclusion and relevance

Our findings suggest that the administration of tixagevimab/cilgavimab, may be more effective than sotrovimab in reducing the clearance time in the patients affected of COVID-19. However, there wasn't a marked reduction between two Mabs concerning worsening and mortality rates.

Contacts

l.fiorito@policlinicoumberto1.it Luigi Angelo Fiorito
vescovo.2102902@studenti.uniroma1.it Roberta Vescovo

Abstract Number: 4CPS-017
J06- IMMUNE SERA AND IMMUNOGLOBULINS