

4CPS-036

Section 2: Case studies - with patient consent

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BACKGROUND AND IMPORTANCE

Tocilizumab (TCZ) has been a key pillar in the management of **pulmonary hyperinflammation in patients with SARS-CoV-2 pneumonia**. The incessant publication of new studies assessing its effectiveness and the ideal time of use means that in-hospital protocols are constantly being reviewed and updated.

AIM AND OBJECTIVES

To **describe** the clinical characteristics of hospitalized patients with SARS-CoV-2 pneumonia **treated with TCZ** and their evolution, and to **compare** our results with those of the primary endpoint (28-day mortality) of the **RECOVERY study**.

MATERIAL AND METHODS

Retrospective observational study of patients administered TCZ between October 2020 and February 2021 in a tertiary hospital.

Criteria for TCZ use -> were PAFI<300 and meeting 2 of 3:

- C-reactive protein(CRP)>150mg/L
- D-dimer>1500ng/ml
- Ferritin>2000ng/ml
- Not having contraindications

Each patient received a single dose of 400mg if weight <75kg and 600mg if weight >75kg

We collected:

- Demographic data (age, sex)
- Comorbidities
- Days from symptom onset to TCZ administration
- CRP, D-dimer and ferritin pre and post (15 days) TCZ administration

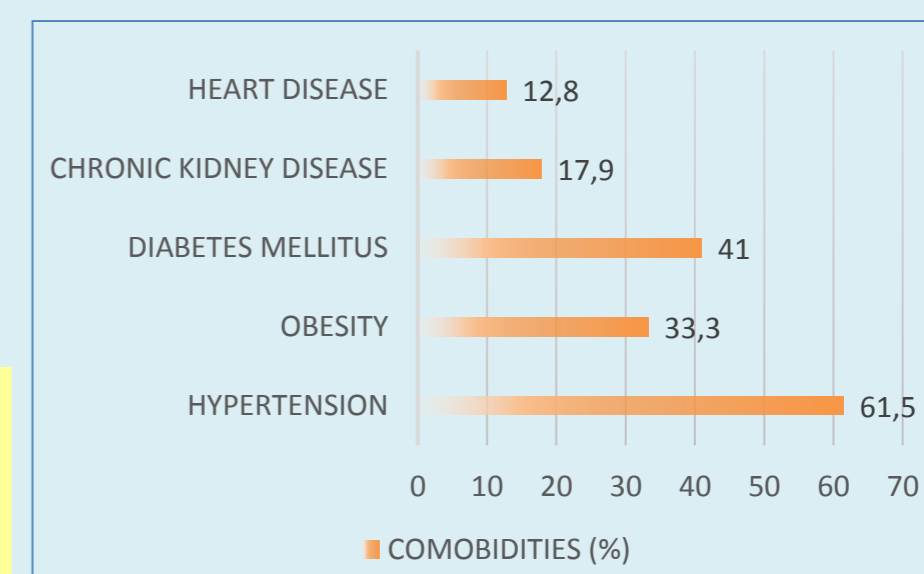
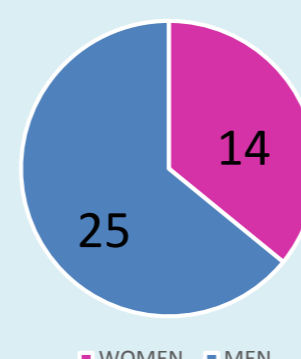
Clinical evolution was evaluated by mortality rate at 28 days

Statistical analysis: STATA/MP[®]16.0. Student's t test was used for comparison of quantitative variables

RESULTS

39 patients

Median age 74 years (IQR:61-80)



Median time from symptom onset to TCZ administration was 10 days (IQR:7-15)

	MEDIAN PRE-ADMINISTRATION	MEDIAN POST (15 DAYS) ADMINISTRATION	P
CRP	152.5mg/L (IQR:89-220.8)	1.7mg/L (IQR:0.65-4.2)	p<0.001
D-DIMER	2300ng/ml (IQR:11959-4889)	1124ng/ml (IQR:567-1439)	p=0.1726
FERRITIN	1242ng/ml (IQR:647-2705)	851 ng/ml (IQR:268-1384)	p=0.1294

Mortality at 28 days was 64.1%.

CONCLUSION AND RELEVANCE

Our sample size is smaller than that of the RECOVERY study. However, the days of symptoms until TCZ administration(10 vs.9) and the median CRP prior to TCZ(143 vs.152.5mg/L) in both studies are very similar. Our mortality is much higher(64.1% vs.29%). We found statistically significant difference between our pre- and post-CRP data.

With this result, the in-hospital protocol was modified and new criteria for TCZ administration in COVID patients became: O2 saturation<92% or PAFI>300 and CRP>75mg/L, and having no contraindications for use.

In subsequent studies we will test whether this update helps to improve mortality outcomes.

