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Background and importance:

The severe affectation by the COVID-19 virus is caused by an inflammatory response triggered in the individual. The use of immunosuppressive agents such as tocilizumab may be effective due to cytokine storm blockade. Since it is about off-label use, experts recommend developing management protocols from hospitals.

Aim and objectives

To determine the efficacy of tocilizumab in severe COVID-19 disease and the adequacy to a protocol of use.

Material and methods

❖ **Study design:** A retrospective, observational and descriptive study over a 12-month period was conducted. All COVID-19 patients who received tocilizumab were included.

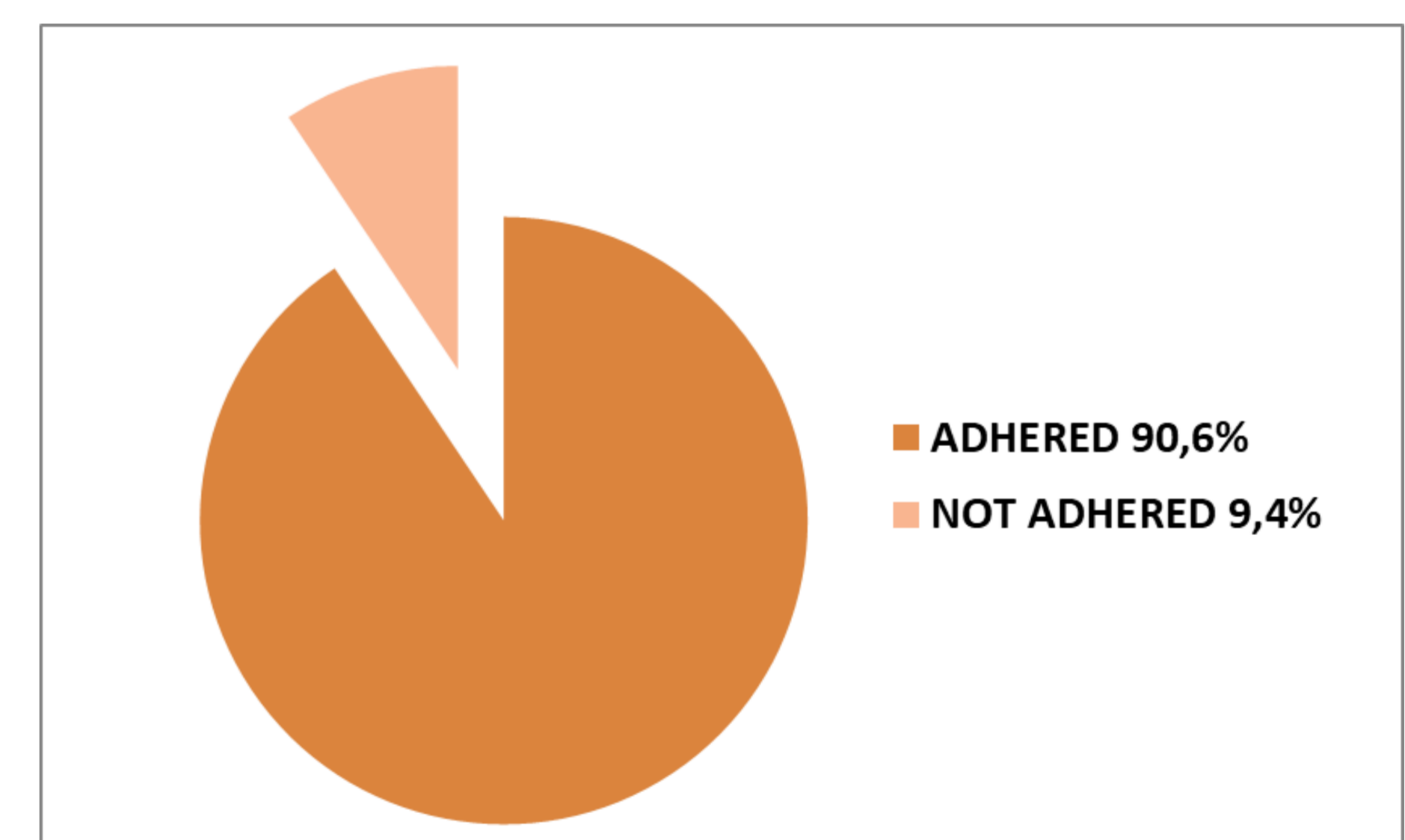
❖ **For the protocol development, following criteria were included:** 1) Interstitial pneumonia with respiratory insufficiency and high-flow oxygen; 2) Absence of response to 3 boluses of corticosteroids; 3) Interleukin-6 > 40 UI/L. In the absence of interleukin-6, patients had to meet at least 3 criteria: C reactive protein (CRP) > 10 mg/dl; D-Dimer > 1 µg/ml; Ferritine > 1000 ng/ml; cytopenia of at least 1 series. To evaluate response, CRP was monitored.

❖ **Collected data** were age, gender, administration date, vaccination against COVID-19, administered dose, CRP, exitus.

Data were collected from an electronic prescription programme Farmatools® and the computerised medical history, MambrinoXXI®

Results:

- A total of 32 patients were analyzed, of which 90.6% adhered to the protocol for use. Of those who were not adhered 9.4% due to severity of sudden illness.
- The mean value of the initial CRP was 5.96 mg/dl reducing to 1.14 mg/dl after the tocilizumab administration. In 81.3% of patients there was a reduction.
- Referring to dose based on weight, 60% of the patients received the 600 mg dose, the remaining 40% receive the dose of 400 mg.
- Of the total of patients, 43.75% had not been vaccinated against COVID-19,
- 37.5% of patients treated the final result was exitus, all of them vaccinated



Conclusion and relevance:

- A high percentage of patients meet the protocol criteria. The reason why Patients accomplished the protocol was a rapid evolution of the disease.
- A high percentage of treated patients were not vaccinated. In general, the vaccine protects from severe disease.
- The role of the hospital pharmacist is important in the development of protocols, especially in these cases of off-label uses for a correct treatment approach avoiding indiscriminate use.



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L04- IMMUNOSUPPRESSANTS