ANALYSIS OF THE EVOLUTION OF INTERLEUKIN-6 IN COVID-19 PATIENTS AFTER BEING TREATED WITH DEXAMETHASONE

**BACKGROUND**

Hospital’s protocol: IL-6 > 40 pg/ml is required to start treatment with tocilizumab.

Assessing the role of dexamethasone (DEX) in the evolution of IL-6 during the first hours of the patient’s hospital admission could help prevent a premature use of tocilizumab.

**AIM AND OBJECTIVES**

✓ Assessing the evolution of IL-6 after the use of DEX in patients diagnosed with COVID-19 and IL-6 > 40 pg/ml

**MATERIALS AND METHODS**

- Retrospective descriptive observational study
- Second-level hospital
- Nov 2020 - Jan 2021
- Data were subjected to Wilcoxon’s test

**INCLUSION/EXCLUSION CRITERIA**

- COVID-19 patients with IL-6 levels above 40 pg/ml:
  - treated with DEX
  - with determination of IL-6 levels, both at the admission and within the following 96 h.
- Prescription of DEX at least 24 hours before the first determination.
- Use of tocilizumab before the first determination or between determinations.

**RESULTS**

- **N=41**
- Age: 64 years old [IQR 23]
- 66.7%
- **12 patients** (29.3%) were finally treated with tocilizumab
- **7** (58.3%) still presented levels of IL-6 > 40 pg/ml
- **87.8%** of the patients experienced a decrease of IL-6
  - p<0.01
- The median of differences was -66.1 pg/ml [IQR 67.3]
  - p<0.01
- 75.6% IL-6<40 pg/ml
- 21.9% IL-6<7 pg/ml

**EVOLUTION OF IL-6 LEVELS**

- Hospital admission: 85.6 pg/ml [IQR 110.9]
- After being treated with DEX: 24.2 pg/ml [IQR 33.1]

The median time between determinations was 48 hours [IQR 48]

**CONCLUSIONS**

- DEX treatment reduced IL-6 levels to below 40 pg/ml in most patients in 48 hours
- IL-6 monitoring after a DEX treatment could help prevent an inaccurate use of tocilizumab
- It is necessary to research the benefits of tocilizumab for patients with low levels of IL-6

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