EXPERIENCE WITH TOCILIZUMAB IN SEVERE ACUTE RESPIRATORY SYNDROME CORONAVIRUS 2 (SARS-COV-2) INFECTION

C. Redondo Galán¹, M. Ferris Villanueva¹, D. González Vaquero¹, M.D. Rivas Rodríguez¹, J.F. Rangel Mayoral¹.
¹ University Hospital Complex of Badajoz, Hospital Pharmacy, Badajoz, Spain
carmenredogal@gmail.com

Background and Importance
Tocilizumab is an immunosuppressive agent which has demonstrated high efficacy in clinical trials for the treatment of coronavirus, since its mechanism of action seems to inhibit the inflammatory cascade.

Aim and Objectives
To evaluate the efficacy and safety of tocilizumab during the global pandemic.

Materials and Methods
Sex/age
Medical history
Concomitant drugs for SARS-CoV-2
Diagnosis
Hospitalisations days
Patients admitted to the Intensive Care Unit (ICU)
Patients with mechanical ventilation
Dose of Tocilizumab
Time from onset of symptoms to administration
Adverse reactions
Final situation

All patients met the criteria used established by the Spanish Agency of Medicines and Medical Devices (AEMPS): adequate biochemical parameters and absence of ongoing infections.

Results

Concomitant drug therapy %

- Interferon-9-1b: 12.5%
- Methylprednisolone oral: 25%
- Methylprednisolone boluses: 37.5%
- Lopinavir/ritonavir: 87.5%
- Azithromycin: 100%
- Hydroxychloroquine: 100%

Medical history

- Arterial hypertension: 17%
- Heart disease: 8%
- Diabetes: 33%
- COPD: 25%
- Active neoplasia: 17%

N= 131 patients
75% men
70 (57-83) years
AEMPS criteria: 8

✓ Diagnosis: severe pneumonia all cases
✓ Average duration of hospitalisation: 29 (4-73) days
✓ 50% patients were admitted to the ICU and required mechanical ventilation
✓ Dose: 600 mg (75%)
✓ Average time from symptom onset to drug administration: 15 (10-30) days
✓ No adverse reactions were reported
✓ 87.5% were discharged

Conclusion and Relevance
Treatment with tocilizumab could be considered a safe and effective option in patients with severe SARS-CoV-2 pneumonia. Further studies are necessary to confirm these preliminary results. The adjustment of the treatments to the criteria established by the regulatory agencies and the recording of health outcomes could contribute to more efficient therapies.