

## Immunomodulators and COVID 19: a Possible Strategy

### *Inmunomoduladores y COVID 19: una estrategia posible*

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By September, 2022, 609 031 330 cases of COVID-19 infection have been reported worldwide, with approximately 6 515 452 deaths. The U.S.A. is the country<sup>1</sup> with the highest number of diagnosed cases (288 583 per million people), with a total of 1 046 733 deaths, followed by India and Brazil. According to some sources, Ecuador reported approximately 998 202 cases and 35 876 deaths; this accounts for 57 182 cases per million people. This has been a challenge for healthcare systems around the world. After that avalanche of cases, the haste to find an effective treatment is perfectly understandable. This led the Regulatory Authorities to be more flexible about the technical and methodological requirements for drug approval; although this sometimes allowed the use of certain treatments that in other situations wouldn't have been approved due to lack of information and cost. The specific case of Janus-associated kinase (JAK) 1/2 inhibitors is paradigmatic. Approved by the European Agency for the Evaluation of Medicinal Products (2012) and the Food and Drug Administration (2011) for the treatment of myelofibrosis and polycythemia vera (2014),<sup>2</sup> it was first used in patients diagnosed with COVID-19 infection

mostly as compassionate use, supported by small studies, some non-randomized or weak, sometimes turning to physiopathological explanations and using surrogate markers of questionable efficacy. In this sense, studies were conducted comparing some treatments that could possibly be effective against COVID-19 with other treatments that had already shown efficacy (such as corticosteroids); in other cases, new treatments were compared with other therapies that hadn't shown a real benefit or at least left unanswered questions (for example, hydroxychloroquine), thus generating a dark informative scenario from which we couldn't obtain many reliable conclusions. There were thousands of articles published around the world, but only a few were good quality. Fortunately, after some time we learned that some of these treatments apparently improved some important outcomes, for example the JAK 1/2 inhibitors, which even in systematic reviews seem to reduce mortality whatever the cause (on day 28 and day 60), compared to standard care,<sup>3</sup> a fact that has already been emphasized. Time and science will give us a clearer scenario about the efficacy and safety of these treatments so that we can see these results

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in patients in our daily practice, always taking into account the categorization of their disease.

## REFERENCES

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