Patients who are candidates for treatment with monoclonal antibodies for pre-exposure prophylaxis of COVID-19

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Background and importance
Cilgavimab/tixagevimab are recombinant human IgG1κ monoclonal antibodies, which are indicated for COVID-19 pre-exposure prophylaxis in adults and adolescents ≥12 years of age weighing ≥40 kg.

Aim and objectives
To assess patients who are potential candidates for treatment with cilgavimab/tixagevimab in a tertiary care hospital and to describe the search strategy.

Material and methods
In Spain, potential candidates for treatment with cilgavimab/tixagevimab are people with a high degree of immunosuppression (due to pathology or treatment) who do not respond adequately to vaccination. The Spanish Agency of Medicines and Health Products establishes the conditions for patients who are candidates for treatment with cilgavimab/tixagevimab. A search for patients was carried out, prioritizing the following criteria: hematological patients on treatment with rituximab during the last 9 months, patients with solid organ transplant, patients with multiple sclerosis on treatment with ocrelizumab/rituximab, and patients with recent infection by COVID-19 who belong to any risk group. All of them underwent serology, including in the study those with negative serology (anti-anati-S antibodies < 260 BAU/ml). Those patients were scheduled for cilgavimab/tixagevimab administration.

Results
112 patients
- Hematological patients on rituximab treatment = 38
- Multiple sclerosis patients on rituximab/ocrelizumab treatment = 50
- Kidney transplantation = 24

72 patients
- Hematological patients on rituximab treatment < 9 months = 35
- Multiple sclerosis patients on rituximab/ocrelizumab/interferón beta-1A treatment = 27
- Patient on adalimumab treatment = 1
- Kidney transplantation = 9

Cilgavimab/tixagevimab was administered to 62 patients
- Positive serology (anti-anati-S antibodies > 260 BAU/ml) = 40
- Unknown reasons = 7
- COVID-19 infection = 2
- Deep vein thrombosis suspected = 1

Median age
59.5 years old (27-77)

Conclusions and relevance
More than half of the patients enrolled did not have an adequate response to COVID-19 vaccination. The search strategy was a good tool for administering pre-exposure prophylaxis of COVID-19 to these more vulnerable patients. Further studies are needed to evaluate the effectiveness of the treatment.

Bibliography