EXPERIENCE OF THE USE OF BARICITINIB IN COVID-19 NEUMONIA

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Objective
• Baricitinib is an immunosuppressive agent included as one of the therapeutic options for COVID-19 in the Spanish protocol of “Agencia Española del Medicamento y Productos Sanitarios”. The objective of our paper is to assess the effectiveness of this drug in hospitalized but non critically ill patients.

Material and Methods
➢ Observational and retrospective study
➢ Study period: from March 26th to May 5th.
➢ Inclusion criteria: hospitalized patients diagnosed with COVID-19 pneumonia and treated with baricitinib
➢ Data collected: age, gender, comorbidities, severe pneumonia diagnosis, ferritin and interleukin 6 (IL-6) prior to the beginning of treatment with baricitinib, standard of care according to the hospital’s protocol, concomitant treatment with anakinra, duration of treatment with baricitinib, average hospital stay (AHS), deaths and hospital discharges.
➢ The data were collected from the electronic medical record and hospital’s management department.

Results

<table>
<thead>
<tr>
<th></th>
<th>IL-6 &gt;40U/L</th>
<th>IL-6 &lt; 40U/L</th>
<th>Not measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baricitinib group</td>
<td>29.8%(51)</td>
<td>37.4%(64)</td>
<td>32.7%(56)</td>
</tr>
<tr>
<td>Discharged hospital</td>
<td>70.6%(36)</td>
<td>93.8%(60)</td>
<td>-</td>
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<tr>
<td>Died</td>
<td>29.4%(15)</td>
<td>6.3%(4)</td>
<td>-</td>
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Average hospital stay*  14.6 days
Global mortality 18.1%(31)
Median duration of treatment 5 days (1-12)
Ferritin (>2500 UI/L) 23.4%(40)
Standard of care according to the hospital’s protocol 84.2%(144)

*Average hospital stay of the whole sample of patients diagnosed with COVID-19 pneumonia of 17.2 days

Conclusions
AHS for baricitinib patients was shorter than the one of the whole sample of COVID-19 patients. Percentage of patients with high IL-6 was superior than that of patients with high ferritin, being mortality greater in patients with IL6>40 UI/L, so IL-6 level appears to be a better prognostic factor of mortality than ferritin. This could be related also with a greater patient’s immune response. Regarding to treatment effectiveness, mortality of patients who were treated with SoC plus baricitinib was similar to that of patients treated with anakinra plus baricitinib.