Guillain-Barre syndrome following the first dose of SARS-CoV-2 vaccine, Oxford/AstraZeneca (ChAdOx1)

Síndrome de Guillain-Barre após a primeira dose da vacina contra a SARS-CoV-2, Oxford/AstraZeneca (ChAdOx1)

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ABSTRACT
In the United Kingdom, until 04/21, 6 patients with SGB after the ChAdOx1 were notified out of a total of 42,917 vaccinated, with an 80% reduction in hospitalization in the elderly after vaccination. Facts added to the global pandemic scenario, the vaccine remains necessary.

Keyword: ChAdOx, SARS-CoV-2 vaccine, Guillain-Barre syndrome, AstraZeneca.

1 CASE PRESENTATION
Male L.R., 62 years old, received 1st dose of ChAdOx1 vaccine on 28/04/2021, after 6 days started with chest and lower back pain associated with paresis in the right lower limb of ascending character. On the 8th day evolves with upper limbs bilaterally with worse right, becoming tetra paresis with lower limb predominance. On the 10th day, urinary retention, dysphagia (requiring bladder catheter (BC) and nasoenteral probe (NEP). Physical examination
shows: flaccid paresis in 4 limbs, distal pattern in the lower and proximal limbs in the upper limbs, abolished aquileus reflexes and the other grade 1, proprioception abolished in the left lower limb and paresthesia in the 4 limbs and tongue. He presented in cerebrospinalfluid (CSF) 58 proteins and 1 leukocyte and neuroaxison nuclear magnetic resonance without alterations. Electroneuromyography (ENMG) demonstrates sensory and motor polyneuropathy of a demyelinating nature and accentuated degree. A human immunoglobulin (HIG) starts 400mg/kg. After five days OF HIG, he presented CSF with 453.9 proteins and 1 leukocyte. New CSF, on 21st day, presented protein 149.9. The patient progresses with improvement in pain and strength, with grade 3 in feet and upper limbs with grade 5, in addition was removed NEP and BC. He is discharged on the 30 days with guidance for rehabilitation care and outpatient follow-up with a neurologist.

2 DISCUSSION

The ChAdOx1 vaccine is composed of a deficient replication of the adenovirus of chimpanzees, which in intracellular médium stimulates the glycoprotein S of COVID 19, induces in going production of antibodies (AB) and T cells. This generates a molecular mimicry, leading to the formation of surface AB against myelin sheaths, explaining Guillian-Barre syndrome (GBS). Patient presented has a closed diagnosis for GBS due to anamnesis, clinical criteria, CFS and ENMG. It also does not present another probable trigger for GBS, besides ChAdOx1, being excluded by serology in active EPV and CMV blood, in addition to normal tomography of chest and absence of evidence for airway or gastrointestinal infections. Finished then a rare case of GBS after the Oxford vaccine, as few reports in the literature.

Table 1. Comparation between the first, second and third cerebrospinalfluid, five and eight days apart respectively.

<table>
<thead>
<tr>
<th></th>
<th>RED CELLS</th>
<th>LEUKOCYTE</th>
<th>GLUCOSE</th>
<th>PROTEIN</th>
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<tr>
<td>CSF 10/05/21</td>
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<td>1</td>
<td>67</td>
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<tr>
<td>CSF 15/05/21</td>
<td>25</td>
<td>1</td>
<td>83</td>
<td>453.9</td>
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<tr>
<td>CSF 23/05/21</td>
<td>38</td>
<td>1</td>
<td>64</td>
<td>149.9</td>
</tr>
</tbody>
</table>

Image 1. Sequence T2 dixon of dorsal and cervical column, respectively nuclear magnetic rsonance without alteration that explain the déficit.
REFERENCES


