"The anti-inflammatory peptide CIGB-258(Jusvinza) to treat COVID-19"

Gerardo Guillen, Mabel Hernandez-Cedeño, Rafael Venegas-Rodriguez,
Maria del Carmen Dominguez-Horta

Center for Genetic Engineering and Biotechnology, Havana 10600, Cuba
gerardo.guillen@cigb.edu.cu

Hyperinflammation distinguishes COVID-19 patients who develop a slight disease or none, from those progressing to severe and critical conditions. CIGB-258 is an altered peptide ligand (APL) derived from the cellular stress protein 60 (HSP60). The mechanism of action of the peptide was elucidated in pharmacological studies and clinical trials in rheumatoid arthritis patients. CIGB-258 was safe and reduced inflammation which led to the use of the peptide in the treatment of COVID-19. We examined specific biomarkers associated with hyperinflammation, and the cytokine storm, granzyme B and perforin. All critically ill patients were under invasive mechanical ventilation and received the intravenous administration of 1 or 2 mg of CIGB-258 every 12 h. seriously ill patients were treated with oxygen therapy receiving 1 mg of CIGB-258 every 12 h and all patients recovered from their severe condition. Biomarker levels associated with hyperinflammation, such as interleukin (IL)-6, IL-10, tumor necrosis factor (TNF-α), granzyme B, and perforin, significantly decreased during treatment. Furthermore, we studied the ability of CIGB-258 to induce Tregs cells and found that Tregs were induced in all studied patients. Patients treated with CIGB-258 did not show symptoms of possible immunosuppression during the therapy and followup stages. This therapy restores the eutrophils/lymphocytes ratio and induces a favorable outcome for patients. The early administration of CIGB-258 may improve the condition of seriously ill patients and prevent their progression to the critical stage. Recently, we have continued to treat a cohort of patients classified as mildly ill, but with hyperinflammation signs. These patients did not progress towards severe illness. Altogether, these results support the therapeutic potential of CIGB-258 for diseases associated with hyperinflammation.

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[2] M. Hernandez-Cedeño, R. Venegas-Rodriguez, R. Peña-Ruiz, M. Bequet-Romero, R. Santana-Sanchez, E. Penton-Arias, G. Martinez-Donato, G. Guillén-Nieto, María del Carmen Dominguez-Horta. CIGB-258, a peptide derived from human heat-shock protein 60, decreases hyper-inflammation in COVID-19 patients. Cell Stress and Chaperons. **2021.** https://doi.org/10.1007/s12192-021-01197-2