and the patient developed urinary dysautonomia and dysphagia.

Clinical Hypothesis: GBS

Diagnostic Pathways: A lumbar puction was performed and analysis of Cerebral Spinal Fluid (CSF) revealed slight albuminocytologic dissociation. RT-PCR testing in the CSF for neurotropic viruses was negative as well as SARS-CoV-2. Head Computed-tomography showed no alterations. Treatment with intravenous human immunoglobulin led to progressive improvement of the quadriparesis in the following weeks.

Conclusion and Discussion: Viral infections are frequently diagnosed in the days or weeks preceding the diagnosis of GBS. Multiples studies on coronaviruses have shown that these viruses have neurotropic characteristics and molecular mimicry is one of the mechanisms through which SARS-CoV-2 could have induced inflammatory demyelinating neuropathy, even though the SARS-CoV-2 RT PCR in the CSF was negative. Further investigations should be performed about the role of SARS-CoV-2 in GBS.

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BILATERAL INTERNUCLEAR OPHTHALMOPLEGIA ASSOCIATED WITH SARS-COV-2 INFECTION

Sara Moutinho-Pereira[1], Vanessa Carvalho[2], Helena Greenfield[1], Ana Vaz Ferreira[1], Ana Costa[1], Catarina Cruto[2], Vítor Tedim Cruz[2], Cristina Duque[2]

[1]Hospital Pedro Hispano - Matosinhos, Medicine, Senhora da Hora, Portugal

[2]Hospital Pedro Hispano - Matosinhos, Neurology, Senhora da Hora, Portugal

Background and Aims: A 54-year-old man presented with acute onset oblique binocular diplopia, preceded by a self-limited episode of diarrhea the day before. The neurologic examination showed skew deviation with hypertropic right eye and bilateral internuclear ophthalmoplegia (INO). Physical examination was otherwise unremarkable.

Methods: INO can be caused by ischemia, infection, demyelinating disease, neoplasms and autoimmune diseases.

Results: The brain computed tomography (CT) scan with contrast was normal, as well as standard blood tests. Brain MRI and CSF studies were normal. Stool microbiologic study was negative. The patient tested negative for HIV, VDRL, hepatitis A, B and C viruses, CMV, *Borrelia*, botulism and IGRA test. RT-PCR for SARS-CoV-2 was negative. Autoimmunity panel tests, including acetylcholine receptor antibody, anti-MuSK, anti-GQ1b and onconeural antibodies, were within normal range. A 5-day course of high-dose intravenous methylprednisolone was started with progressive improvement of symptoms and resolution of diplopia. One week after hospital discharge the patient performed a serologic COVID-19 test which was positive for both IgG and IgM, with negative RT-PCR test.

Conclusions: Neurologic manifestations, including ophthalmoparesis, have been described in COVID-19 patients,

either due to immune mediated response or direct viral invasion of the central nervous system. INO is a clinical finding highly specific of damage in the medial longitudinal fasciculus in the brainstem. Despite the lack of imaging findings, the dramatic clinical response to anti-inflammatory therapy seen in our case points towards an immune mediated mechanism. After extensive negative workup, the serologic positive test suggests a potential relationship between a bilateral INO and SARS-CoV-2 infection.

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DYNAMIC PREDICTIVE PARAMETERS TO FORECAST COVID-19 PATIENTS' OUTCOME

Gaia Sinatti[1], Benedetta Cosimini[1], Silvano J. Santini[1], Giovanna Picchi[2], Nerio Iapadre[2], Nicolò Casano[1], Francesca Ranfone[1], Jonathan Pino[1], Paolo Carducci[3], Giovanni Tarantino[4], Alessandro Grimaldi[2], Clara Balsano[1]

[1]University of L'Aquila, Department of Clinical Medicine, Life, Health & Environmental, L'Aquila, Italy

[2]San Salvatore Hospital, Department of Infectious Disease, L'Aquila, Italy

[3]San Salvatore Hospital, Department of Pneumology, L'Aquila, Italy

[4]Federico II University Medical School, Department of Clinical Medicine and Surgery, Napoli, Italy

Background and Aims: The independent prognostic value of PaO_2/FiO_2 ratio and inflammatory biomarkers elevation, over time, among patients with SARS-CoV-2 infection is not yet studied. We wondered to find a prognostic risk score for predicting the poor clinical outcome of infected patients. The purpose of our prospective observational study was to assess the patients' respiratory function by PaO_2/FiO_2 ratio with the inflammatory biomarkers CRPhs, LDH, NLR and PLR, at the day of hospitalization, at day 3 and day 7, for predicting the outcome of patient affected by COVID-19 pneumonia.

Methods: 150 patients presented positive to RT-PCR assay from nasopharyngeal swab sample and chest CT. We categorized patients in the two populations considering the global clinical status accordingly to the World Health Organization. Patients belonging the population "A" presented with mild disease, whereas population "B" presented a severe disease. We found a significant and predictive correlation between PaO_2/FiO_2 ratio and the critical clinical status of the population "A" and "B".

Results: PaO_2/FiO_2 ratio was more reliable as prognostic biomarker than all the analysed inflammatory parameters. The optimal cut-off values calculated by the AUC curve (sensitivity 75%, specificity 85.25%, LR+ 4.866, LR- 0.339) and the cut-off value to distinguish population "A" from "B" was <274 mmHg.

Conclusions: PaO_2/FiO_2 ratio was a good predictor of the development of severe acute respiratory distress syndrome (ARDS) in COVID-19 patients. PaO_2/FiO_2 ratio <274 mmHg should be considered a useful parameter for the early identification of patients who require closer respiratory monitoring and more aggressive supportive therapies to avoid poor prognosis.