## Facial palsy as a neurological complication of SARS-CoV-2

Paralisia facial como complicação neurológica da SARS-CoV-2

Bruno Niemeyer de Freitas RIBEIRO<sup>1</sup>, Edson MARCHIORI<sup>2</sup>

A 26-year-old male patient was admitted with symptoms of cough and fever for three days. Chest computed tomography showed multiple and bilateral ground-glass opacities, predominantly peripheral, some with superimposed intralobular septal thickening (Figure 1). Nasopharyngeal swab for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) on real-time reverse-transcription-polymerase-chain reaction (RT-PCR) assay was positive. On the eighth day of illness, he developed right facial weakness consistent with facial nerve palsy. Magnetic resonance imaging of the brain showed enhancement of the right facial nerve (Figure 2).

Neurological manifestations of coronavirus disease 2019 (COVID-19) have been associated with immune-mediated injuries rather than direct viral neurotropism, occurring in about 36% of patients, including strokes, vasculitis and Guillain-Barré<sup>1,2,3</sup>. We emphasize that it is paramount to be aware of the possibility of facial paralysis in these patients.



**Figure 1.** Chest computed tomography showing multiple and bilateral ground-glass opacities, predominantly peripheral (A and B), some with superimposed intralobular septal thickening (B) (white arrows).



Figure 2. Contrast enhanced magnetic resonance of the skull showing enhancement of the right facial nerve (white arrows), in the axial (A) and coronal (B) planes.

## References

- Goh Y, Beh DL, Makmur A, Somani J, Chan ACY. Pearls and oy-sters: facial nerve palsy as a neurological manifestation of Covid-19 infection. Neurology 2020 Aug;95(8):364-7. https://doi.org/10.1212/ WNL.00000000009863
- 2. Caamaño DSJ, Beato RA. Facial diplegia, a possible atypical variant of Guillain-Barré Syndrome as a rare neurological complication

of SARS-CoV-2. J Clin Neurosci. 2020 Jul;77:230-2. https://doi. org/10.1016/j.jocn.2020.05.016

 Oliveira RM, Santos DH, Olivetti BC, Takahashi JT. Bilateral trochlear nerve palsy due to cerebral vasculitis related to COVID-19 infection. Arq Neuro-Psiquiatr. 2020 Jun;78(6):385-6. https://doi. org/10.1590/0004-282X20200052

<sup>1</sup>Instituto Estadual do Cérebro Paulo Niemeyer, Rio de Janeiro RJ, Brazil.
<sup>2</sup>Universidade Federal do Rio de Janeiro, Rio de Janeiro RJ, Brazil.
Bruno Niemeyer de Freitas RIBEIRO b https://orcid.org/0000-0002-1936-3026; Edson MARCHIORI b https://orcid.org/0000-0001-8797-7380
Correspondence: Bruno Niemeyer de Freitas Ribeiro; E-mail: bruno.niemeyer@hotmail.com
Conflict of interest: There is no conflict of interest to declare.
Authors' contributions: BNFR: Elaboration of the manuscript; EM: Manuscript revision.
Received on July 14, 2020; Received in its final form on August 11, 2020; Accepted on August 16, 2020.