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CASE REPORT: CEREBRAL PSEUDOTUMOR AFTER COVID-19

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Abstract: Introduction: In December 2019, the Covid-19 pandemic began, a potentially serious respiratory infection whose etiology is a coronavirus. In a study carried out in Wuhan (CN), the SARS-COV-2 virus caused neurological manifestations in 36.4% of infected patients. Pseudotumor cerebri is defined as an increase in intracranial pressure without evidence of expansive lesions or ventriculomegaly on imaging studies and with normal CSF constitution. The etiology is often unknown, but pseudotumor cerebri has a known association with certain infectious diseases. There are some published reports in the medical literature of pseudotumor cerebri after a case of Covid-19, which could indicate a possible causal relationship between the two conditions. Purpose and case report: This study aims to report the case of a 35-year-old female patient without comorbidities who presented with a clinical picture of pseudotumor cerebri after a diagnosis of Covid-19. The methodology of the work consists of a case report based on a retroactive analysis of medical records, as well as a review of the literature on the subject. Conclusion: There are some other cases described of pseudotumor cerebri after Covid-19, pointing to the need to publish new studies on the subject so that eventually the presence of a causal relationship between the two pathologies can be proven or refuted. The methodology of the work consists of a case report based on a retroactive analysis of medical records, as well as a review of the literature on the subject. Conclusion: There are some other cases described of pseudotumor cerebri after Covid-19, pointing to the need to publish new studies on the subject so that eventually the presence of a causal relationship between the two pathologies can be proven or refuted. The methodology of the work consists of a case report based on a retroactive analysis of medical records, as well as a review of the literature on the subject. Conclusion: There are

some other cases described of pseudotumor cerebri after Covid-19, pointing to the need to publish new studies on the subject so that eventually the presence of a causal relationship between the two pathologies can be proven or refuted.

Keywords: Cerebral pseudotumor; COVID-19; SARS-COV-2.

INTRODUCTION

In December 2019, the Covid-19 pandemic began, a potentially serious respiratory infection whose etiology is a coronavirus. In a study carried out in Wuhan (CN), the SARS-COV-2 virus caused neurological manifestations in 36.4% of infected patients. These manifestations can occur both by direct action of the virus in the central nervous system and as a result of the immune-mediated response (MAO et al, 2020).

Pseudotumor cerebri is defined as an increase in ICP without evidence of expansive lesions or ventriculomegaly on imaging studies and with normal CSF constitution. The patient shows signs of intracranial hypertension, such as headache and ophthalmological changes, and there is no change in the level of consciousness. The etiology is often unknown, but there are case reports in the literature associating pseudotumor cerebri with certain infectious diseases including COVID-19 (MUKHARESH, 2022).

CASE REPORT

The female patient, 35 years old, without comorbidities, diagnosed with COVID-19 for more than 1 month. She sought the medical emergency service several times in a week due to severe headache in which she was investigated via emergency room with normal tests, analgesia was performed and released. The patient evolved with visual deficit and was hospitalized for investigation. Computed tomography and magnetic resonance imaging of the skull and CSF analysis were performed, with results within normal limits. During hospitalization, the patient had a seizure requiring neurointensive care. Neurologically, the patient is stable in Glasgow 15 but is amaurotic. On physical examination, bilateral papilledema was evidenced. Due to the normal tests performed, it was decided to install a lumbar catheter for intracranial pressure (ICP) monitoring, which showed ICP reaching 30mmHg. With CSF flow control through the lumbar catheter, there was partial improvement of amaurosis. So opting to perform a lumboperitoneal shunt. Today, the patient is being followed up at the outpatient clinic with unilateral amaurosis without other neurological signs and symptoms.

DISCUSSION

There are several neurological complications already described associated with COVID-19. These include stroke, Guillian-Barré syndrome, acute transverse myelitis and acute encephalitis. It is important to mention that there are several neurological symptoms that are commonly associated with SARS-CoV-2 infection, such as headache and dizziness (AHMAD; RATHORE, 2020).

Multisystem inflammatory syndrome in children (MIS-C) is a condition associated with COVID-19 that presents with cutaneous, mucous, cardiovascular, and gastrointestinal symptoms. There are several reports in the literature of pseudotumor cerebri in post-COVID-19 children associated with MIS-C (BILEN, 2021).

In addition, there are some reports of published cases of pseudotumor cerebri in adults after COVID-19 in the medical literature, that is, not related to MIS-C, which suggests a possible causal relationship between COVID-19 and the pseudotumor. brain (ZEKJA, 2021; NORO, 2020; MUKHARESH, 2022).

CONCLUSION

There are other cases of pseudotumor cerebri described after Covid-19, pointing to the need to publish new studies on the subject so that eventually the presence of a causal relationship between the two pathologies can be proven or refuted.

REFERENCES

AHMAD, Imran; RATHORE, Farooq Azam**. Neurological manifestations and complications of COVID-19: A literature review.** J Clin Neurosci, 2020.

BILEN, Nimet Melis et al. **Multisystem Inflammatory Syndrome in Children Presenting With Pseudotumor Cerebri and a Review of the Literature**. Pediatr Infect Dis J., 2021.

MAO, Ling et al. **Neurologic Manifestations of Hospitalized Patients with Coronavirus Disease 2019 in Wuhan, China**. JAMA Neurology, 2020.

MUKHARESH, Loulwah MD et al. **Síndrome de pseudotumor cerebral com COVID-19: uma série de casos.** Journal of Neuro-Ophthalmology, 2022.