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Persistent Hiccups as Main COVID-19 Symptom



Dear Editor:

In this letter, we would like to share our experience in the diagnosis of a clinical case of COVID-19, in a 60-year-old Mexican mestizo male with persistent singultus and no previous history of any respiratory disease. Nonetheless, the patient reported a history of a sedentary lifestyle, obesity and an umbilical hernioplasty 7 years ago.

At the onset of the disease the patient manifested symptoms similar to those of a common cold, with fever, and persistent singultus (> 48 h), he consequently sought medical care and was examined by a general physician who indicated acetaminophen, metoclopramide, and ilaprazole to control the symptoms. Several days after the consultation, the patient developed dysgeusia. In light of the above and the lack of control of the symptoms, hematic biometry and blood chemistry of 27 elements, measurement of D-dimer levels and posterior chest X-ray were ordered for the patient.

The following parameters from these studies were abnormal: Gamma glutamyl transpeptidase 70 U/L, cholesterol 56 U/L, high-density cholesterol 27.1 mg/dL, pyruvic glutamic transaminase 56 U/L, lactic dehydrogenase 453 U/L, serum sodium 132 mmol/L, serum iron 35 ug/dL, serum calcium 7.9 mg/dL and dimer D 1.16 pg/mL. Chest X-ray showed lung parenchyma with decreased radiolucency of images with poorly defined irregular edges, in relation to probable peribronchial thickening, in the oximetry SpO₂ reading, oxygen saturation of 87% was noted.

Given these results, hospital admission was recommended, the patient however ultimately refused hospitalization. A nasal and pharyngeal sample was taken by means of a hyssop for molecular study and identification of the SARS-CoV-2. Oral treatment of 2% lidocaine was indicated for treatment of the main symptom, nevertheless symptoms persisted after two days. Alternatively, clonazepam and haloperidol were indicated, remission of singultus was reported at 72 h and symptoms eventually disappeared at 96 h. The real-time PCR- result was positive for the identification of Gene N, Gene E, and Gene RdRp, and positive for SARS-CoV-2. To date, the patient remains asymptomatic, with no apparent sequelae from the disease.

At the end of February 2020, the first case of SARS-CoV-2 was reported in Mexico, with Mexico City and its metropolitan area reporting the highest incidence and with a mortality rate reported rates greater than 10% nationwide. However, the number of unidentified and asymptomatic cases is high, which could raise the current numbers of reported cases.¹ In the context of symptoms manifested during the infection, with the increase in the number of series and case reports, as well as the results

of various epidemiological studies, a greater number of symptoms related to the disease have been identified.

Neurotropism for SARS-CoV-2 has been proposed in recent studies, with a variety of associated neurological symptoms.² As far as singultus is concerned, nerve involvement in the infection are phrenic and vagus, as well as the sympathetic nervous system and the brain areas related to the development of the singultus.³ Previously, a similar case is informed by Price G et al., reporting on the persistence of hiccups (singultus) described as an atypical manifestation, in a 62-year-old man diagnosed with COVID-19.⁴

The patient in this case had a history of cholesterol values > 200 prior to the development of the infection and had been undergoing dietary management without rigid adherence. Information which should be analyzed in future studies, is the relationship between the cholesterol decrease in previous hypercholesterolemic patients (i.e. patients with homozygous and heterozygous familial hypercholesterolemia). In this context the case reinforces the results obtained in vitro studies analyzing SARS-CoV,⁵ where was found that cholesterol depletions impaired the viral infection, being this a possible protection mechanism against the infection, and that cholesterol levels can have relation with COVID-19 severity.⁶

Finally, the present case reported in this letter intends to provide additional information emphasizing the following points: I. The identification of singultus as an atypical and principal finding in COVID-19 infection; II. Remission of persistent singultus by combining haloperidol and clonazepam; III. Emphasize observation of the decrease in total cholesterol values in patients with the infection.

DECLARATION OF COMPETING INTEREST

There is no conflict of interest.

ACKNOWLEDGMENTS

To the patient's family and the health care personal who assisted in part of the diagnosis, ATS would like to thank CONACYT.

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