## Neumotórax desarrollado durante el curso de una neumonía por SARS-CoV-2

Pneumothorax developed during the course of SARS-CoV-2 pneumonia

## **CASE REPORT**

Coronavirus disease 2019 (COVID-19) is a recent outbreak in mainland China and has rapidly spread to multiple countries worldwide<sup>1,2</sup>.

The largest case series of chest imaging described multilobar involvement of rounded and peripheral airspace opacities. The occurrence of pneumothorax is rare in SARS-CoV-2 pneumonia<sup>3-5</sup>.

We are reporting a case of a male who developed a pneumothorax secondary to SARS-CoV-2 pneumonia.

We present a 70-year-old male patient who was admitted to Emergency Department complaining of productive cough with mucopurulent sputum, dyspnea, fever with maximum temperature of 38.4°C and diarrhea for seven days. He had no smoking or alcohol consumption. He didn't have contact with anyone known to have COVID-19. His personal pathological history included hypertension, type 2 diabetes mellitus and dyslipidemia. He denied known structural pulmonary pathology. On physical examination, the patient was febrile (38.6°C), peripheral oxygen saturation (SpO2) was 88% in room air and a rude vesicular murmur and bilateral intermittent wheezing were identified.

Pertinent laboratory results showed increased inflammatory parameters (leukocytosis of  $10.4 \times 10^9$  cells/L with neutrophilia of 91% and CRP of 32 mg/dl) and acute kidney injury (creatinine 1.95 mg/dl and urea 100 mg/dl). Arterial gasometry with  $FiO_2$  24% revealed acute type 1 respiratory failure, with  $PaO_2$  73mmHg. Chest radiograph showed right lower lobe intersticial infiltrate (image 1) and chest computed tomography (CT) scan showed bilateral ground glass opacities and extensive areas of alveolar consolidation with airbronchogram. Influenza A and B were negative, as well as Legionella pneumoniae antigenuria and serology for Mycoplasma pneumoniae. Oropharyngeal and nasopharyngeal swab test for SARS-CoV-2 by qualitative real-time reverse-transcriptase—polymerase-chain-reaction (RT-PCR) assay was positive.

The patient started empirical antibiotherapy with ceftriaxone and azithromycin as well as hydroxychloroquine and lopinavir/ritonavir.

On the 5th day of hospitalization, the patient was on a 31% ventury mask. His chest radiograph which showed a spontaneous left pneumothorax, and therefore a 16F caliber chest tube was placed in the 5th left intercostal space. Total pulmonary re-expansion was observed 48 hours later, and chest tube was removed.

The patient was discharged after 3 weeks of hospitalization without further respiratory complications.

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Image 1



Image 2



Palabras clave: COVID-19, coronavirus, neumonía, complicación, neumotórax Keywords: COVID-19, coronavirus, pneumonia, complication, pneumothorax.

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