

IMAGES IN CLINICAL MEDICINE

SUCCESSFUL RECOVERY OF COVID-19 PNEUMONIA IN A YOUNG MALE WITH NEGATIVE COVID-19 IGM/IGG ANTIBODY RAPID TEST BUT POSITIVE 2019-NCOV RT-PCR

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A 36-year-old man, chronic smoker (10 pack-year), with a history of sarcoid dermatitis at age 16 years, treated successfully, complains for seven days of persistent muscle pain, sore throat, cough with intermittent mucopurulent expectoration, right-sided chest pain, chills, high-grade fever, difficulty in breathing and a weight loss of 2 kilograms. Prior to hospital admission, he had close contact with his mother, who was declared 2019-nCoV positive, three days before his son's symptoms appeared. At that particular moment, he was visited at home by his family physician and quickly assessed with chromatographic immunoassay for the qualitative detection of IgG & IgM antibody of COVID-19. The rapid test was non-reactive and the patient received symptomatic treatment. As an in-patient, upon physical inspection, we uncovered bibasilar crackles. Nasopharyngeal and oropharyngeal swabs tested positive by SARS-CoV-2 RT-PCR. Lab test results: glucose 119 mg/dL, a white blood cell count of $13.56 \cdot 10^9$ / Liter, neutrophils 8.95 10^9 /Liter, lymphocytes 49.89%, D-dimers 0.519 ug/mL, creatine kinase-MB 25 U/L, lactic acid dehydrogenase (LDH) 722 U/L, fibrinogen 461 mg/dL, slightly elevated liver aminotransferases, normal coagulation tests, normal renal function, angiotensin

converting enzyme and calcium levels normal, troponin T 7.19 ng/L, ferritin 189 ng/mL, C reactive protein level of 21 ug/L and erythrocyte sedimentation rate of 30 mm/hr. Cardiac enzymes and electrocardiogram all normal. Rapid flu-test negative. The sputum sample was positive for *Mycoplasma pneumoniae*. High-resolution computed tomography (CT) of the chest disclosed few images of patchy ground glass opacities in bilateral lower lobes and minimal right-side pleural effusion (Figure 1). Based on the CT findings, the level of suspicion of COVID-19 infection is CO-RADS 6 (patient with positive PCR and bilateral ground glass opacities, halo sign, pleural fluid). Despite ultrasound-guided thoracentesis¹, the procedure was unsuccessful because of small effusion. The patient received for a short period low-dose methylprednisolone², cough medicines and, based on national protocol, 7 days of hydroxychloroquine in combination with azithromycin. The dynamics of chest high-resolution CT displayed structured absorption of lung lesions and no scarring of tissues (Figure 2)³. After two negative RT-PCR tests from respiratory specimens at 24 hours interval and 17 days after onset of symptoms, he was considered clinically

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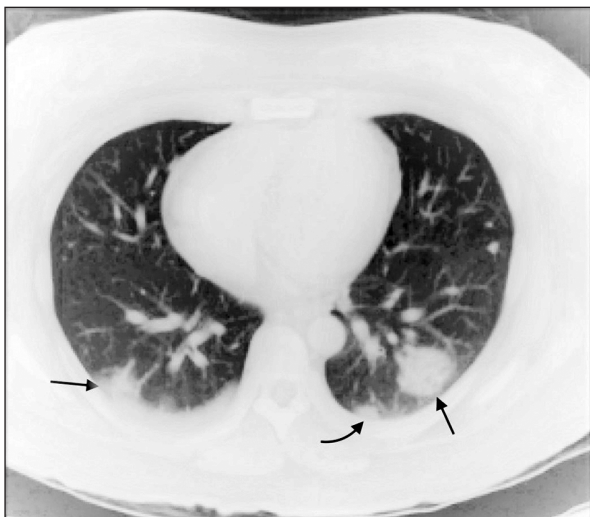


Figure 1. High-resolution axial computed tomography of the chest – multiple images of patchy ground glass opacities in the lower lobes, bilateral, and minimal right-side pleural effusion.



Figure 2. High-resolution axial computed tomography of the chest in dynamics unveils structured absorption of lung lesions and no scarring of tissues

recovered and discharged. Oropharyngeal swab tests for COVID-19 in the follow-up visits were negative.

Take home messages:

- ✓ Treatment with hydroxychloroquine is significantly associated with viral load reduction in SARS-COV-2 patients and its effect is reinforced by azithromycin⁴.
- ✓ ECG monitoring is mandatory in combined treatment, because of the risks like: QT segment prolongation, torsades de pointes or even death.

Author contributions:

A.M.M. is responsible for the diagnostic procedures and clinical diagnosis. P.E.M is responsible for treatment decisions and also wrote the manuscript. The authors have read and agreed to the published version of the manuscript.

Compliance with Ethics Requirements:

„The authors declare no conflict of interest regarding this article. The authors declare that all the procedures and experiments of this study respect the ethical standards in the Helsinki Declaration of 1975, as revised in 2008(5), as well as the national law. Informed consent was obtained from the patient included in the study“.

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