

## SARS CoV 2 Infection Revealed with Type 2 Sinoatrial Block

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### Introduction

COVID 19 (SARS-CoV-2 infection) was declared as a pandemic by the WHO on March 11th, 2020. Its mortality risk is correlated to its pulmonary complications and refractory hypoxemia. Although CoViD 19 can have a direct impact on the cardiovascular system, cardiovascular diseases history can either predispose or worsen the corona virus infection. An association with a sinoatrial block was rarely noted in previous studies. The authors of this article report a rare case of association of COVID-19 infection and sinoatrial block, emphasizing the difficulties of the pharmacological treatment.

### Case Report

54-year-old male, with a history of pulmonary tuberculosis, treated 10 years before, admitted in the ICU for SARS CoV2 pneumonia. The patient had a contact with an infected individual 10 days before. 5 days later, intense fatigue, dry cough, 39° fever, in addition to syncope were noted. Following a positive PCR test conducted at a regional hospital, the patient was admitted into our facility.

During his admission, the patient was conscious (GCS 15/15), his respiratory status was stable (18 cycles/min), with no retractions. However, he presented a 40-bpm bradycardia, BP was 140/65mmHg, temperature of 38.5°C. CT scans showed typical ground glass opacities associated with crazy paving, graded CO-RADS 3. CBC showed a lymphopenia of 860/mm, WBC 5090 el/mm<sup>3</sup>, Hb at 13.9 g/dL, Platelets of 250000 el/mm<sup>3</sup>. D-dimers were 0.21 mg/L, troponins at 1.2 ng/L and BNP at 87 ng/L. Electrolyte panel tests showed normal potassium level (4.5 mEq/L), ferritin at 87 ng/L and CRP of 120. A pre-therapeutic EKG was realized and showed a type 2 sinoatrial block, rhythm

of 60 bpm, no repolarization trouble and QTc at 440mm. Echocardiography was normal.

Following the patient's cardiovascular stability and an acceptable tolerance of his conduction disorder, therapeutic care was based on bi-antibiotherapy (ceftriaxon 2g/day + Moxifloxacin 400mg x2/day), anti-coagulation, IV Salbutamol at 1mg/hour awaiting a pacemaker insertion. We could not administer the association Hydroxychloroquin + Azythromycin in the presence of preexistent conduction troubles.

The patient had a favorable outcome under salbutamol, as his pulse rate normalized.

### Comment

Sinoatrial block is a conduction disorder between sinus node and the atrium (sino atrial junction). This type of block is frequently associated with sinus node dysfunction. COVID 19 therapy molecules can lead to cardio vascular undesirable effects, such as QT prolongation, making patients care quite special. To our knowledge, no such case has ever been reported.

### References

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