Marked Sinus Bradycardia in a COVID-19 Patient

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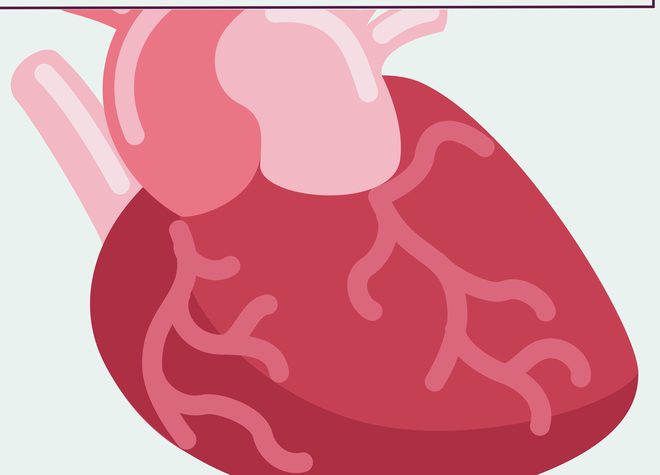
INTRODUCTION

- Reports in the literature show cardiac manifestations of COVID-19 including bradyarrhythmia.
- This association has only been observed in hospitalized patients with moderate to severe infection and those on treatment with Remdesivir or Tocilizumab.

INITIAL PRESENTATION

- 33yo, unvaccinated for COVID-19.
- No past medical history or medications.
- Intermittent dizziness and light headiness for 1 day.
- Positive for COVID-19 four days earlier.
- ROS and Physical Exam:
  - No abnormal findings except for heart rate of ~ 59
  - BPM.
  - HR did not respond to seated bicycle kicks/activity.
- EKG: sinus bradycardia, HR 50.



HOSPITAL COURSE

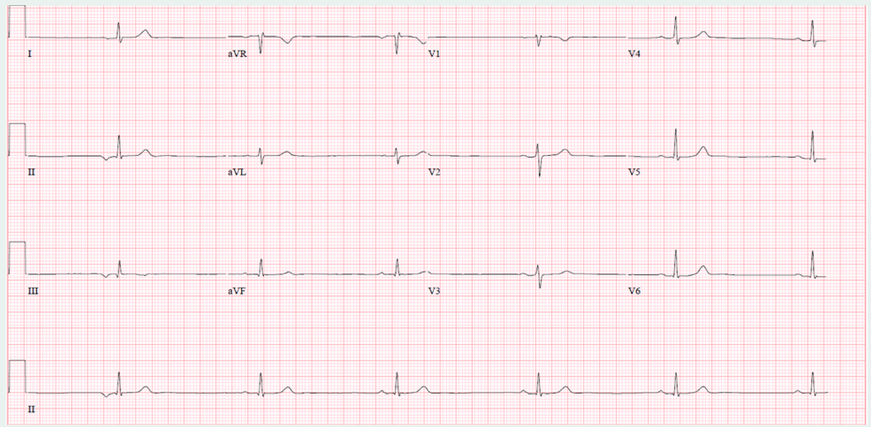
Day 2

- Telemetry showed 44 BPM, EKG: sinus bradycardia, 42 BPM.
- SpO2 was 98%, troponin-I levels were normal.
- CTA obtained but unremarkable.

Day 3

- Nurse reported heart rate of 32 BPM, another EKG: sinus bradycardia, 35
- BPM.
- Echocardiogram showed preserved EF with normal heart structure.
- Patient continued to have transient episodes of asymptomatic bradycardia and was discharged without any need for further acute interventions.

EKG FINDINGS



DISCUSSION

- The specific mechanisms for the development of bradyarrhythmia in COVID-19 patients remain unclear.
- Our observations and other published reports suggest that bradyarrhythmia may be a clinical feature of COVID-19 and may imply cardiac involvement of the virus.
- Rhythm and cardiac biomarker monitoring should be considered.

CONCLUSION

- The largest question to answer with future research is if rhythm changes, such as bradycardia, should be considered in Sars-Cov-2 risk stratification.
- In addition, if arrhythmias are present does that indicate a potential reason to initiate therapies such as steroids, remdesivir, and MAB's independent of patient hypoxia or underlying risk.

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