Evaluation of cardiac function by two-dimensional speckle tracking echocardiography in uncomplicated COVID-19 survivors

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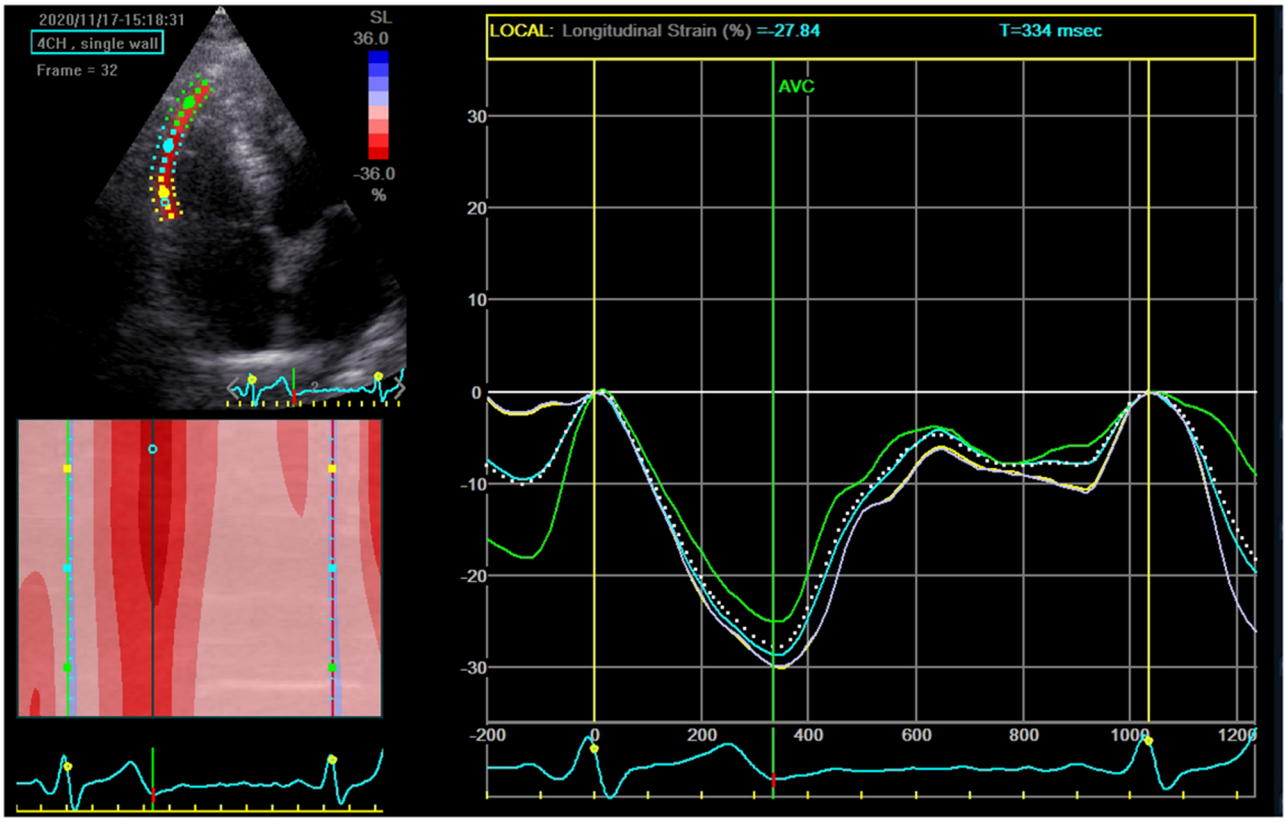
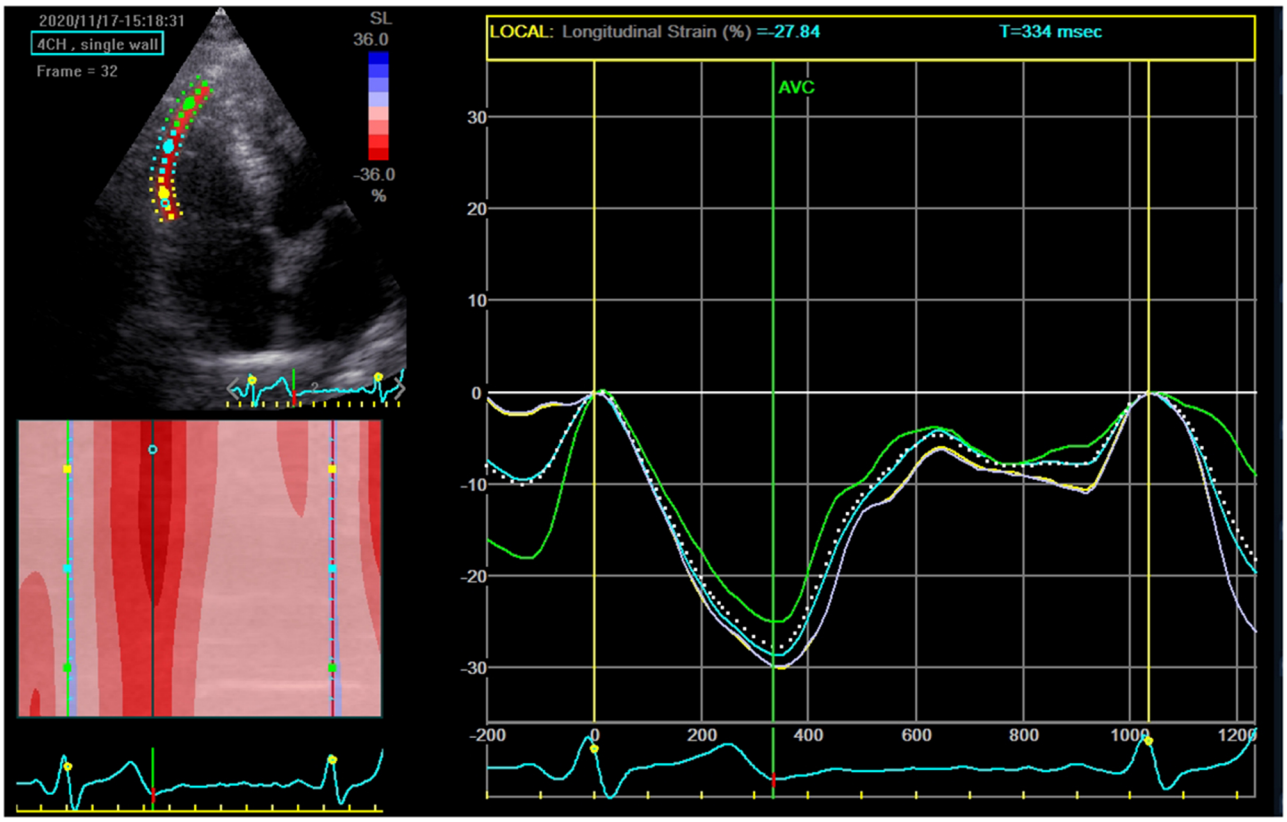
5COVID-19 is a multi-systemic infectious disease. Nearly 20-30% of hospitalized patients have evidence of acute myocardial involvement, portending a poorer prognosis. However, not much is known about the long-term cardiac effects of the disease. Also, there is a growing concern about the cardiac sequelae of COVID-19 among survivors. In this study, we aimed to investigate the long-term cardiac effects in patients with prior mild-moderate COVID-19 infection, using both conventional and speckle tracking echocardiographic imaging modalities. A total number of 58 patients who have been diagnosed with COVID-19 within the previous six months and 20 age-, sex- and risk factor-matched healthy adults were included. All patients underwent a comprehensive echocardiographic examination. Both conventional and two-dimensional speckle tracking echocardiographic measurements were done. Also, serum cardiac biomarkers were obtained on the day of echocardiographic examination. Compared with healthy controls, COVID-19 survivors had similar left and right ventricular systolic function at six months. Also, left and right atrial peak systolic strain values did not differ between the groups. Long-term cardiac sequelae of COVID-19 infection are still widely unknown, resulting in concern among survivors. This study is valuable in putting forth the unaffected systolic and diastolic myocardial function on long-term in uncomplicated COVID-19 cases and may decrease the survivors' anxiety and the number of unnecessary applications to cardiology clinics.

Abstract Figure. Left ventricle strain analysis



Abstract Figure. Right ventricle strain analysis


2020/11/17-15:18:31
4CH , single wall
Frame = 32
SL
36.0
-36.0
%
LOCAL: Longitudinal Strain (%) =-27.84
T=334 msec
AVC
30
20
10
0
-10
-20
-30
-200
0
200
400
600
800
1000
1200