

## Echocardiography and ECG monitoring not very beneficial in COVID-19 follow-up even in long haulers

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**Objective:** To evaluate the need for cardiac evaluation of unselected patients recovered from COVID-19.

**Methods:** Prospective observational cohort study, which included 105 patients recently recovered from severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The diagnosis was established by reverse transcription polymerase chain reaction on swab test of the upper respiratory tract.

Demographic parameters, patient history, clinical evaluation, cardiac blood markers, ambulatory 7-day ECG monitoring and echocardiography have been performed to determine possible cardiac injury.

**Results:** The study group (n=105) included 58% women, mean age was 46 years (range 18–77 years). Mean time interval between the onset of the infection and the follow-up visit was 107 days. One quarter of the patients required hospitalisation during the acute phase of the disease, the rest recovered at home. 74% suffered from mild form, 3.8% moderate, 18.3% severe and 2.9% of critical form of the disease.

At the time of evaluation 63.5% of the patients were referring the ongoing symptoms, fulfilling the criteria of postcovid syndrome, while more than

half of the whole group mentioned at least one symptom of possible cardiac origin (breathing problems, palpitations, exercise intolerance, fatigue).

One patient was diagnosed with paroxysmal atrial fibrillation (woman, 73 years old, dilated left atrium), one patient with atrioventricular block with indication for implantation of the pacemaker (man, 71 years, cardiac MRI didn't found any signs of myocardial inflammation); in one subject (man, 69 years) was diagnosed coronary artery disease due to atherosclerosis with the necessity of revascularization by percutaneous coronary intervention; one woman was prescribed beta-blocker for inadequate sinus tachycardia and palpitations. All these findings are not suspected to be the result of SARS-CoV-2 infection. In three patients mild pericardial effusion was found with no intervention necessary. There was not found any left or right ventricle dysfunction on echocardiography. Only three findings on ECG monitoring mentioned above need a therapeutic intervention.

**Conclusion:** Despite the significant proportion of the patients with ongoing symptoms beyond the 12 weeks after the onset of the infection SARS-CoV-2, confirmed cardiac impairment is quite rare and distributed mostly among older patients and those with other risk factors.