## Cardiac Involvement in COVID-19 Detailed, Heart Failure Concerns Raised

(N jwatch.org/fw116877/2020/07/27/cardiac-involvement-covid-19-detailed-heart-failure

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Cardiac involvement is common in patients with COVID-19, even months after diagnosis, according to research in *JAMA Cardiology*.

In one study, 100 randomly selected patients who'd recovered from COVID-19 underwent cardiac magnetic resonance imaging a median of 71 days after testing positive for SARS-CoV-2. At the time of MRI, roughly 20% reported atypical chest pain or palpitations, and over one third said they had ongoing shortness of breath. Overall, 78% had abnormal MRI findings, regardless of preexisting conditions, COVID-19 severity, or cardiac symptoms. In particular, some 60% showed cardiac inflammation.

In a second study, researchers examined cardiac tissue taken during autopsy from 39 patients who died from COVID-19. SARS-CoV-2 RNA was documented in the myocardium in 62%. Additionally, 41% had viral load exceeding 1000 copies per microgram RNA; in five patients with the highest viral load, there was evidence of viral replication within the myocardial tissue.

Editorialists urge more research, expressing concern that "the crisis of COVID-19 will not abate but will instead shift to a new ... incidence of heart failure and other chronic cardiovascular complications."

In other COVID-19 news, the National Institutes of Health announced the start of a phase 3 trial of Moderna's investigational vaccine against SARS-CoV-2. Researchers plan to enroll 30,000 U.S. adults without COVID-19. Participants will receive two doses of the mRNA-1273 vaccine or placebo 28 days apart, and immune responses will be monitored for 2 years after the second dose. Participants suspected of having COVID-19 during the study will need to provide a nasal swab for testing within 72 hours. See more details at the link below.

## LINK(S):

MRI study in JAMA Cardiology (Free)

Autopsy study in JAMA Cardiology (Free)

JAMA Cardiology editorial (Free)

Phase 3 trial news release (Free)

NEJM Journal Watch COVID-19 page (Free)

NEJM COVID-19 page (Free)