8.2 - Imaging of Systolic and Diastolic Function

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Echocardiographic findings in COVID-19 patients with cardiovascular disease

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Background: COVID-19 has rapidly spread around the world and threatened global health. Although this disease mainly affects the respiratory system, there is increasing evidence that SARS-CoV-2 also has effects on the cardiovascular system. Echocardiography is a valuable tool in the assessment of cardiovascular disease.

Purpose: The study's purpose was to investigate the echocardiographic parameters in COVID-19 patients with cardiovascular disease (CVD).

Methods: Eighty-two patients (males, 54%; mean age, 64 ± 12 years) who were confirmed COVID-19 infection were enrolled in this study. Fourty (48.7%) patients had underlying CVD. Echocardiography was performed in all patients for evaluation of cardiac function.

Results: Size of right atrium $(38.3 \pm 4.7; 33.6 \pm 4.5 \text{ mm})$ and right ventricle outflow tract $(36.7 \pm 4.4; 33.2 \pm 4.1 \text{ mm})$, mitral E/Ea ratio $(9.8 \pm 3.1; 8.4 \pm 2.7)$ were increased, whereas TAPSE $(20.2 \pm 3.9; 22.6 \pm 3.5 \text{ mm})$ was decreased in patients with CVD compared with those without CVD.

Conclusion: The most frequent echocardiographic findings in COVID-19 patients with CVD was impaired systolic function of right ventricle and diastolic function of left ventricle.