

Research Note: Heart Function Values & Parvoviral Infection

Canine parvovirus can result in myocarditis via primary infection of myocardial cells or secondary to systemic inflammatory response syndrome and sepsis. Echocardiography is a safe, relatively inexpensive, and noninvasive diagnostic modality for evaluating heart function; however, hypovolemia caused by dehydration decreases preload, which affects echocardiographic indexes of cardiac function and may affect the sensitivity of this diagnostic assessment. Two-dimensional speckle tracking echocardiography (2D-STE) has introduced 2 new variables (ie, strain [St], strain rate [SR]) for cardiac assessment and is minimally influenced by preload.

This study measured St and SR values using 2D-STE in dogs with parvovirus. Results demonstrated significantly impaired values in all parvovirus patients, indicating systolic myocardial dysfunction; impaired values were particularly notable in severely affected dogs and dogs that died.

Source

de Abreu CB, Muzzi RAL, de Oliveira LED, et al. Systolic dysfunction by two-dimensional speckle tracking echocardiography in dogs with parvoviral enteritis. *J Vet Cardiol.* 2021;34:93-104.

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1-2. Data on file at Boehringer Ingelheim.