Myocardial injury and coronary artery dilation are cardiac sequelae of SARS CoV-2 related Multisystem Inflammatory Syndrome in Children (MIS-C). Treatment regimens vary widely depending on institutional practice. Children’s Hospital Colorado uses Infliximab followed by intravenous immunoglobulin (IVIG) for the following: coronary artery dilation, ventricular dysfunction, pericardial effusion, clinical signs of hypotension/need for vasoactive agents. We aimed to study trends in C-Reactive Protein (CRP), coronary artery Z-scores (CA-Z), and Left Ventricular Ejection Fraction (LVEF) in children diagnosed with MIS-C who were treated with both intravenous immune globulin (IVIG) and Infliximab. Infliximab and IVIG can be used to treat the hyperinflammatory state of MIS-C. Risk of complications secondary to coronary artery dilation can be mitigated by treatment with infliximab and IVIG. Myocardial injury resulting in decreased function (ejection fraction) can be effectively treated with infliximab and IVIG.

A significant number of patients diagnosed with MIS-C exhibited hypotension, coronary artery dilation, and/or diminished left ventricular function. Patients treated with IVIG and Infliximab exhibited a decrease in CRP during their treatment course. Patients with coronary artery dilation prior to treatment demonstrated significant improvement in CA-Z and nearly universal resolution of dilation by time of discharge. Patients with diminished ventricular function prior to treatment experienced universal resolution of ventricular function as defined by ejection fraction.