

# A Case of Acute Myopericarditis in a Patient with Human Metapneumovirus (hMPV) Respiratory Infection

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Human metapneumovirus (hMPV), a relatively newly isolated virus, has emerged as one of the most common pathogens implicated in respiratory tract infections worldwide. Although very rare, myocarditis has also been associated with this viral infection. A 36-year-old male with type 2 diabetes and essential hypertension presented to the emergency room with one-day chest pain and persistent cough for 3 weeks. His chest pain was pleuritic, alleviated by sitting up. He was hemodynamically stable and physical examination was unremarkable except for lower extremity edema. Troponin and EKG were unremarkable. BNP was elevated at 308 pg/mL, and D-dimer was high at 0.8 mcg/mL. ESR and CRP were both elevated at 16 mm/hr and 79.6 mg/L respectively. CT angiography of the chest revealed tree-in-bud like opacities in the left upper lobe and ground-glass opacities in the right lung. TTE revealed diffuse global hypokinesis and an ejection fraction of 30-35%. Cardiac MRI showed diffuse hypokinesia and myopericarditis. Infectious workup was only positive for hMPV on respiratory pathogen panel (RPP). The patient was diagnosed with hMPV pneumonia, complicated by acute myopericarditis and new onset systolic heart failure. He was treated with ibuprofen and colchicine, and guideline-directed medical therapy for systolic heart failure. With the rising popularity of RPP tests in recent years, the increasing detection of hMPV infections will shed more light on its association with myopericarditis. hMPV is ubiquitous and this case highlights the importance of recognizing the cardiovascular effect of the virus, especially in patients with respiratory tract infection symptoms.