From Gut Flare to Cardiac Scare: A Case of Crohn's Myopericarditis

Introduction: Crohn's disease (CD) is a chronic inflammatory bowel condition with various extraintestinal manifestations, including the rare but serious complication of Crohn's Myopericarditis (CM). CM requires prompt diagnosis and management due to its potential severity. This case involves a middle-aged female with CM complicated by shock, underscoring the need for high vigilance in critically ill CD patients.

Case: A 44-year-old female with an 8-year history of CD presented with substernal pleuritic chest pain, worsened by lying down. She was hypotensive at 92/51 mmHg. She reported an active CD flare with ten bloody bowel movements daily. Previously on Mesalamine and Budesonide, she had discontinued these medications two years prior. Her EKG showed T-wave changes in the anterior leads. Laboratory tests revealed elevated troponins (peaking at 89 ng/dL, normal <16 ng/dL), CHF peptide (1030 pg/ml, normal 0-100 pg/ml), ESR (31 mm/hr, normal 0-20 mm/hr), and CRP (16.5 mg/dL, normal <1 mg/dL). Fecal calprotectin was >8000 micrograms/mL (normal <50 micrograms/mL), and the gastrointestinal pathogen panel was negative.

She was admitted to the ICU and started on IV fluids, norepinephrine, and antibiotics without significant improvement. Transthoracic echocardiogram (TTE) showed moderately reduced ejection fraction (40-45%) and biventricular systolic dysfunction. Cardiac MRI (Figure 1) confirmed biventricular systolic dysfunction, trace pericardial, and bilateral pleural effusions with abnormally elevated T1 and T2 times. The symptoms, TTE/MRI findings, and mild elevation in troponins and inflammatory markers were consistent with myopericarditis. She received low-dose colchicine for myopericarditis, mercaptopurine for her CD flare, and a prednisone taper for both conditions, which led to rapid improvement in her chest pain and diarrhea.

Discussion: On presentation, this patient was presumed to likely have a hypovolemic shock or septic shock given her severe diarrhea, and was managed accordingly. This case highlights the necessity for early consideration of CM in critically ill patients with a history of uncontrolled CD presenting with chest pain and hypotension, especially those not appropriately responding to intravenous fluids and antibiotics. Myopericarditis, although rare, can be acutely life-threatening and result from an acute CD flare or its associated therapies. Prompt identification and multidisciplinary management involving cardiology and gastroenterology are crucial for effectively treating this rare complication of CD.

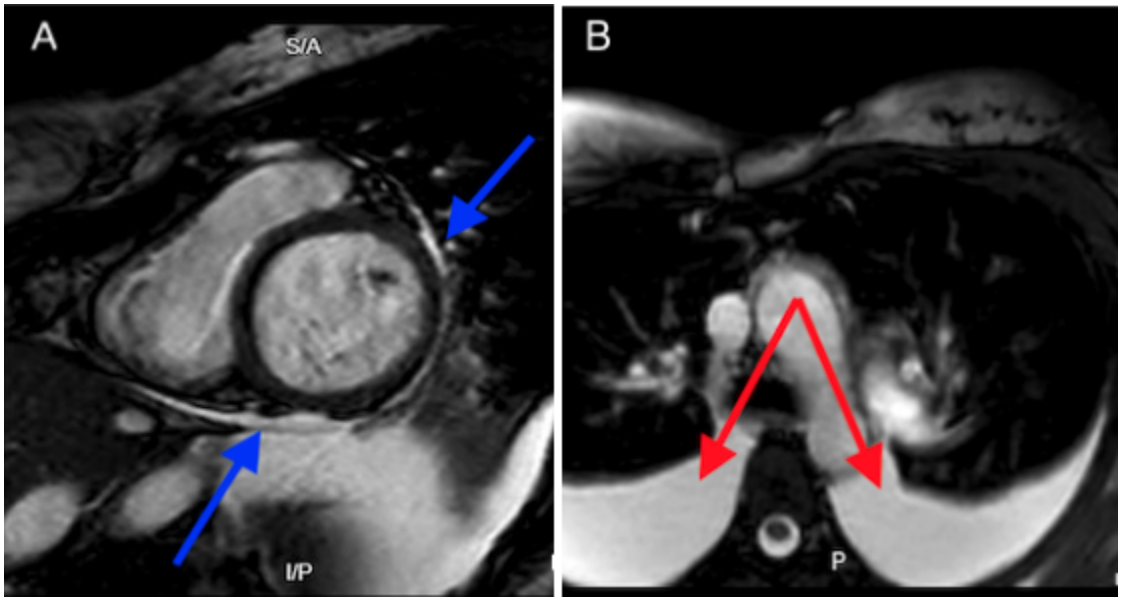

Figure 1A. Short axis view on Cardiac MRI with blue arrows indicating trace pericardial effusion.
Figure 1B. Axial view on Cardiac MRI with red arrows indicating bilateral pleural effusions.