

Complex Clinical Cases

ADDERALL INDUCED DILATED CARDIOMYOPATHY IN AN ADULT MALE WITH ADHD

Poster Contributions
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Background: Non-Ischemic Dilated Cardiomyopathy (NIDCM) is a disorder uncommonly found with stimulant use. Adderall is a stimulant used to treat Attention Deficit Hyperactivity Disorder (ADHD). We herein present a case of a 41-year-old male who presented with acute onset heart failure (HF) with severely reduced ejection fraction that resolved with cessation of Adderall and reoccurred after its resumption.

Case: A 41-year-old male with a history of ADHD, hemochromatosis, Celiac disease presented on 04/2019 with HF symptoms and 20lb weight gain over two weeks. He reported chronic Adderall use and treatment for pneumonia two months prior to symptoms. He denied rashes, chest pain, significant family history, alcohol, tobacco, or illicit drug use. Transthoracic Echocardiogram (TTE) showed LVEF of 15-20% and cardiac catheterization showed normal coronaries. He was stabilized, encouraged to stop Adderall and discharged with a life vest on medical therapy. A Cardiac MRI on 07/2019 showed biventricular HF with no evidence of infiltrative disease or myocarditis. ATTE on 12/2019 showed improvement in LVEF at 45% so the life vest was removed. On 06/2020, he restarted Adderall with reoccurrence of HF symptoms confirmed by TTE with a LVEF of <20%.

Decision-making: The patient presented with NIDCM with risk factors of hemochromatosis, recent viral illness and Adderall use. His hemochromatosis was heterozygous and not pathologic due to Celiac's iron malabsorption. The cardiac MRI also confirmed no infiltrative disease. Although a biopsy was not performed to confirm viral illness, the cardiac MRI did not show myositis. He also had reoccurrence of HF with resumption of Adderall making post-infectious myocarditis less likely.

Conclusion: NIDCM has a broad differential from infection to infiltrative and autoimmune disease, toxic injury, and rarely, stimulant use. There are few case reports of stimulants like Ritalin and Adderall causing NIDCM. Assessing the pattern of presentation with Adderall cessation and resumption and ruling out other etiologies makes Adderall the likely culprit of his HF. These findings warrant further research but patients receiving Adderall may benefit from periodic TTE monitoring.