**CANNABIS INDUCED BASAL-MID VENTRICULAR STRESS CARDIOMYOPATHY**

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**Background.**Cannabis is the most widely used recreational substance. It has been legalized in some states and this has further favored its use. There is lack of awareness of potential cardiovascular adverse effects of cannabis including arteritis, arrhythmias, acute coronary syndrome, stroke, stress cardiomyopathy (SC), and sudden cardiac death.

**Case presentation.**A56 year old man with no significant past history presented with confusion, aphasia, left-sided weakness upon waking up from sleep. He had noted somnolence, lethargy and poor appetite for few days. On physical exam he was confused, had left upper and lower extremity weakness. CT and MRI of head and neck revealed no acute intracranial pathology or abnormal vasculature. He had bilateral alveolar infiltrates on chest x-ray. ECG revealed sinus rhythm and inferolateral ST depression. Troponin reached a peak of 2.3 ng/ml. Echocardiogram revealed severe hypokinesis of the basal-mid left ventricular walls with hyperdynamic apex, left ventricular ejection fraction (LVEF) was severely reduced (25%). Coronary angiography revealed no obstructive disease. Urine toxicology screen was positive for Δ-9- tetrahydrocannabinol (THC). Patient admitted to have used excess marijuana prior to these symptoms. He denied any recent emotional stressors. The clinical findings were consistent with transient encephalopathy and SC which were most likely triggered by marijuana use. Cardiac MRI showed LVEF 36%, wall motion abnormality in basal-mid left ventricular segments without late gadolinium enhancing lesions. He improved with conservative management, was discharged home and continued to do well on outpatient follow up.

**Discussion.**Evidence for a primary role of endocannabinoid system in pathogenesis of stress cardiomyopathy has been mounting. Cannabinoids induce a hyperadrenergic state through receptor-mediated and receptor-independent mechanisms. Endogenous cannabinoids have been shown to produce a receptor-mediated negative inotropic effect on cardiac muscle as well. Although only 2 prior cases of marijuana-associates SC have been reported, we suspect that the condition is under-reported.