

Acute anterior myocardial infarction after “Bonzai” use

To the Editor,

Illicit drug use is one of the major public problems in Turkey. “Bonzai” is a mixture of synthetic cannabinoids, and its use is a growing health problem. Because of its easy access and cheaper price, there is a higher tendency of its abuse. Cardiovascular effects of this drug should be well known by the physicians.

A 29-year-old previously healthy man without cardiovascular risk factors such as hypertension, diabetes, and hyperlipidemia was admitted to our emergency department by paramedics via ambulance. He smoked half a packet of cigarettes per day for 10 years. His family history was uneventful for cardiovascular diseases, and he had no first-degree relatives with diabetes. According to the information gathered from the paramedics, he had lost his consciousness about 30 min before finding him, and on finding him, his cardiac rhythm was ventricular fibrillation. After electrical cardioversion, a hemodynamic response was obtained, but he was intubated because of loss of consciousness. His friend stated that he had for the first time tried to use “Bonzai” three times in the last 3 h. On presentation to the emergency department, his vital signs were as follows: heart rate, 135 bpm and blood pressure, 95/60 mm Hg; his electrocardiography showed acute anterior myocardial infarction. He immediately underwent coronary angiography, and his left anterior descending coronary artery was completely occluded proximally by a thrombus. Other coronary segments did not have any atherosclerotic plaque and free of coronary artery disease. After thrombus aspiration, a 4.5×22-mm bare metal stent was implanted at 14-atm pressure, and using a 5.0×12-mm balloon, the proximal part of stent was dilated successfully. The angiographic result obtained at the end of procedure was good. He was extubated 2 days after coronary angiography and discharged from the hospital after 5 days with good health status.

Cannabinoids are a diverse group of substances acting on cannabinoid receptors; they are classified mainly into three groups: natural

cannabinoids, endogenous cannabinoids, and synthetic cannabinoids. The most well-known example of natural cannabinoids is marijuana. "Bonzai" is the one of the commercial names of synthetic cannabinoids. "Bonzai" is a herbal blend containing multiple synthetic cannabinoids (1). The exact composition of this drug is unknown and may be variable. The compound most frequently found in the herbal mixture is JWH-018. Cannabinoid inhalation has been linked to a higher rate of acute myocardial infarction and mortality after myocardial infarction (2). Most case reports describe relatively young patients in their second or third decades with normal coronary arteries or minimal atherosclerosis, suggesting that marijuana and cannabinoids do not lead to the development or acceleration of atherosclerotic damage in healthy adults (3). However, our case presented with thrombus formation and occlusion of the coronary artery. As a big problem in the world, physicians have to be aware of the cardiac effects of cannabinoids.

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