



CANNABIS INDUCED HEMOPTYSIS IN A YOUNG ADULT

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Objective:

INTRODUCTION

Cannabis is the most frequently used drug in the world, and smoking is the fastest way to produce psychoactive effects. Cannabinoids are lipid soluble, which results in a rapid systemic absorption via respiratory and gastrointestinal tract. The deleterious impact of cannabis on the lungs is well-known, and the additives, such as silicon dioxide, which are used in the drug processing, can pose an additional health risk. Deep cannabis inhalation, and breath holding are especially dangerous. The side effects of marijuana smoking, among others, are a barotrauma of the lung, pneumomediastinum, pneumothorax, subcutaneous emphysema, alveolar haemorrhage, intravascular haemolysis, along

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with acute respiratory distress syndrome, which sometimes have a lethal outcome. Also, adverse cardiac events (myocardial infarction) were reported. This is the direct consequence of high temperatures and toxic active compounds, such as acids, produced during cannabis smoking. The result is inflammatory edema, damaged alveolar-capillary basement membrane, coagulopathy, and increased alveolar permeability.

CASE REPORT

A 36-year old man was hospitalized due to hemoptysis. He used to be addicted to opiates eleven years ago, has untreated hepatitis C, and frequent superficial thrombophlebitides, is a year-long tobacco smoker (pack-years 30), and has occasionally been smoking marijuana for the past 20 years. The last time he smoked marijuana, was two weeks prior to the onset of hemoptysis. He started feeling dyspnea a year ago, with sporadic wheezing, and coughing, but this was his first time having blood in the sputum. He also felt chest discomfort. Renal and liver function, coagulation studies and electrolytes were normal. A computed tomography pulmonary angiogram showed an inhomogeneous ground glass infiltrate anterobasally in the upper lung lobe, without any sign of pulmonary embolism. A fiber optic bronchoscopy showed normal airways with traces of blood. Cytologic work-up of the acquired materials showed no abnormalities, and no infection was proven. Gradually, on conservative therapy, the hemoptysis stopped, and the patient's clinical condition improved.

CONCLUSION

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Illegal cannabis use is prevalent among young people. Although psychiatric disorders are the most common result of marijuana abuse, respiratory complications have been coming into focus due to some rare but life-threatening repercussions, such as hemoptysis. Here we want to emphasise that physicians should exhibit a high level of awareness when treating young patients with alveolar hemorrhage, and take drug abuse into consideration. A lot more effort should be put into educating people about the dangers of marijuana smoking, since complications may arise even in recreational smokers.