



Intraalveolar Hemorrhage of Unusual Etiology

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Abstract

Cannabis use is on the rise worldwide and is an emerging public health problem. This consumption is responsible for harmful respiratory effects, including intra-alveolar hemorrhage. We report the observation of a 26-year-old admitted for exertional dyspnea and hemoptysis of great abundance. The various investigations concluded that there was an intra-alveolar haemorrhage. The immunological and tuberculosis tests were negative. On resumption of the anamnesis, it was noted that cannabis had been regularly consumed for several years and the search for toxic substances in the blood and urine had concluded that tetrahydro-cannabinoids were present. This case illustrates the seriousness of the respiratory complications caused by cannabis, hence the need to insist on the importance of withdrawal management and the education of young people.

Keywords: Cannabis; Intraalveolar Hemorrhage; Vasculitis

Introduction

Cannabis use is on the rise worldwide and is an emerging public health problem. This consumption is responsible for harmful respiratory effects, including intra-alveolar hemorrhage. We report a case of this.

Observation

Patient, 26 years old, smoker 15PA, with no pathological history, is hospitalized for exertional dyspnea that has been evolving for one month. He also reported the occurrence of an episode of hemoptysis of great abundance on the day of his hospitalization. Physical examination revealed tachycardia at 130 beats/min, blood pressure at 9/6, and respiratory rate at 25 cycles/min. Pulmonary auscultation showed bilateral crackling rattles. The rest of the review is unremarkable. Arterial blood gases objectified a pH of 7.42; a PCO₂ at 38 mm Hg; a PO₂ at 64 mm Hg, bicarbonates at 25 mm Hg and an oxygen saturation at 92%. In biology, hemoglobin is at 11/dl, white blood cells at 10300 elements/mm³ and platelets at 299,000 elements/mm³. Liver and kidney tests are normal as well as prothrombin level and kaolin cephalin time.

The intradermal reaction to tuberculin is negative. The immunological profile, in particular anti-nuclear antibodies, an-

ti-glomerular basement membrane antibodies and anti-neutrophil cytoplasm antibodies, is negative. Serum supplement dosing was normal. The search for BK in the sputum and in the bronchial fluid is negative. The cardiac ultrasound is without abnormalities. Chest X-ray showed bilateral alveolar opacities and on CT there is a frosted glass appearance and diffuse panlobular condensation with a clear proximal predominance respecting the peripheries. Bronchial fibroscopy objectified an inflammatory mucosa and on systematic biopsy there are many siderophagous without granulomas or signs of malignancy. In bronchoalveolar lavage, there are also siderophagous patients. On resumption of the anamnesis, the patient reported regular use of cannabis for several years and the search for toxicants in the blood and urine concluded the presence of tetrahydro-cannabinoids. The diagnosis of intra-alveolar haemorrhage due to cannabis is then retained. Eviction of the toxic substance as well as a psychiatric interview are indicated. The clinical course is favorable after a three-week follow-up and a follow-up chest CT scan will be scheduled.

Discussion

In our observation, alveolar hemorrhage syndrome was evoked in front of the classic clinical triad associating respiratory failure, hemoptysis and anemia as well as the ground-glass appearance on chest CT scan [1]. Bronchoalveolar lavage confirmed the diagno-

sis by the presence of siderophages. In our patient, the absence of other systemic signs and the negativity of the immunological assessment made it possible to exclude the diagnosis of vasculitis or connective tissue. A cardiac cause, infectious cause or a blood crest disorder were also ruled out [2,3]. In our case, the diagnosis of intra-alveolar haemorrhage due to cannabis was also mentioned in view of the favourable evolution after eviction of the toxic substance and the absence of recurrence of the haemorrhage. However, cannabis smoke alone has been exceptionally implicated in the occurrence of alveolar hemorrhage and is rather linked to the mode of cannabis consumption such as the combination of cocaine and additives and adulterated cannabis [4].

Conclusion

This observation illustrates the seriousness of cannabis use, which can be responsible for alveolar hemorrhage and acute respiratory distress. The management of this addiction must be multidisciplinary and based on the education of young people from school age [2].

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