

Acute coronary syndrome with elevation of ST associated with ergotamine abuse

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There are few case reports of cases of carotid and aortic dissection related to the ergotamine abuse, but the cases that affect the coronary arteries is a very rare coronary. We present a patient of a 48-year-old female with an ST-segment elevation myocardial infarction attributable to chronic ergotamine use. The coronary angiography showed dissection of right coronary artery proximal.

Keywords: ergotamine; acute coronary syndrome; myocardial infarction; dissection.

INTRODUCTION

There are few case reports of cases of carotid and aortic dissection related to the ergotamine abuse, but the cases that affect the coronary arteries is a very rare coronary [1]. We present a 48-year-old female patient with an ST-segment elevation myocardial infarction attributable to chronic ergotamine use.

CASE REPORT

We presented a rare presentation of a patient of a 48-year-old female with an inferior and posterior ST-segment elevation myocardial infarction attributable to chronic ergotamine use. The only pathological history referred migraine with chronic ergotamine used (8 mg within 12 hours before the event). Our patient had no history of cardiovascular risk factors, other disease or any other type of drugs.

Upon admission, the patient experienced angina pectoris symptoms. HR: 88'. BP: 165/85 mmHg. The electrocardiogram showed ST-segment elevation in D2-D3-Avf (Figure 1A). The cardiac biomarkers were determined upon admission with the following results: creatine kinase was 930 U/L (reference 80-200 U/L), creatine kinase myocardial band 98 U/L (reference < 25 U/L) and cardiac troponin T (reference < 0.1 ng/mL). The coronary angiography showed dissection of right coronary artery proximal (RCA) (Figure 2A). Nitroglycerine infusion before and during angiography due to the location of the

dissection, the presence of coronary TIMI 3 flow, the absence of symptoms and ECG without ST-segment elevation (Figure 1B); a conservative approach was chosen, after discussion with the Heart Team. In coronary artery and thoracic angiography, dissection of the right coronary artery without involvement of the aorta was found (Figure 2B). The patient progressed with no symptoms during hospitalization and had no complications.

The acute coronary syndrome associated a spontaneous coronary dissection (SCD) has been reported in association with connective tissue disorders (like lupus erythematosus, Marfan's syndrome and Ehlers–Danlos syndrome) or described in the third trimester of pregnancy or the postpartum period. SCD can be associated with use of several drugs as cocaine [2]. These clinical situations were excluded in our patient. Except for ergotamine, our patient had no history of pathology or drugs.

Ergotamine derivatives include several drugs widely used in the treatment of acute migraine attacks (used by our patient). The main pharmacological effects of ergotamine are: stimulating α -adrenergic, dopaminergic and serotonergic receptors and directly stimulating smooth muscle cells and central sympatholytic activity. An elevation of the ergotamine plasma concentrations to toxic levels can cause vasoconstriction and ischemia of the brain, heart and/or extremities.

The vasoconstriction generated by ergotamine can induce acute increases in parietal stress of the artery with an increased risk of dissection, even in those with normal coronary arteries [2-3].

The first and most important step in the treatment is to discontinue the causing agent; however, there are no guidelines for the treatment of coronary dissection, so the therapeutic strategy is considered each case in particular. Conservative

treatments are widely used and are recommended for stable patients or when a small vessel or areas where intervention is not possible [4-5].

Declaration of interest: We have no conflicts to disclose any commercial, financial, personal or other relationships.



Figure 1. A-B. Electrocardiography on admission and immediately before discussion with the Heart Team.

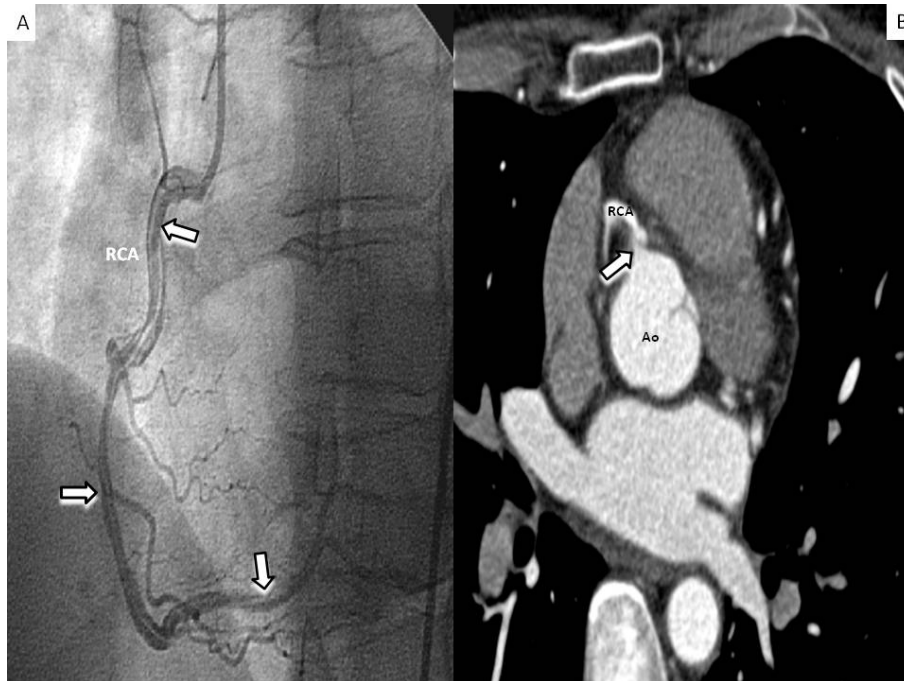


Figure 2. A: Left anterior oblique view (45°) showing a spiral dissection in the proximal to distal segments of the right coronary artery (arrows) B: Computed tomographic (CT) angiograms of the thoracic aorta: demonstrated the presence of dissection of the RCA without involvement of the proximal aorta. RCA: right coronary artery. Ao: aorta.

Există puține cazuri de disecție de arteră carotidă și aortică legate de abuzul de ergotamină, dar cazurile care afectează arterele coronare sunt foarte rare. Prezentăm cazul unei paciente de 48 de ani cu supradenivelare de segment ST ce poate fi atribuit utilizării cronice de ergotamină. Angiografia coronariană a arătat disecția arterei coronare drepte proximale.

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