

Case Report

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Emergency Tracheostomy for Acute Hematoma of the Floor of the Oral Cavity in Patient Under Anticoagulant Therapy: Case Report and Systematic Review



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Abstract

Spontaneous hematoma of the floor of the mouth induced by anti-vitamin K is extremely rare but considered as a potentially fatal complication especially if it is located at the floor of the mouth. Acenocoumarol is a commonly used as an oral anticoagulant agent. It is used in treating thromboembolic disease. Spontaneous bleeding without a history of trauma is a possible complication. The most common sites of bleeding are the genitourinary and gastrointestinal tracts, the central nervous system, the nose (epistaxis). We report a case of an acute hematoma of the floor of the oral cavity developed during oral anticoagulation therapy requiring an emergency tracheostomy. The objective of this study is to describe, from our clinical case and the literature review, the clinical and radiological features of the spontaneous bleeding into the floor of the oral cavity and to discuss its therapeutic management.

Keywords: Hematoma; Floor of the Mouth; Anticoagulation; Tracheostomy

Introduction

The production of hemorrhage in the floor of the mouth it is usually associated with trauma especially the mandibular fractures or with some surgical procedures as the dental implant

placement [1] and in relation to the use of acenocoumarol, streptokinase or heparin, wafarine. Hemorrhagic complications associated with the use of anticoagulant therapy have been well documented [2].

Case Report



Figure 1: Hematoma of the floor of mouth with superior and posterior displacement of the tongue causing obstruction of the upper airway.

A 70-year-old woman presented to the emergency department with respiratory distress caused by an extensive spontaneous bleeding into the floor of the oral cavity (Figure 1). The patient was on anticoagulant therapy with acenocoumarol for atrial fibrillation. Given the impossibility to perform an intubation, an emergency tracheostomy was performed under local anesthesia.

Computed tomography (CT) scan showed an uncollected and poorly limited hematoma of the floor of the mouth fusing between

the supra hyoid muscles (Figure 2). The rate of prothrombin was 31% and the International Normalized Ratio (INR) was 4. The anticoagulant therapy was stopped then the patient received injections of vitamin K associated with infusion of fresh frozen plasma in the intensive care unit. After normalization of the hemostasis blood tests, the acenocoumarol was reintroduced progressively without complications. The patient was successfully extubated after one week (Figure 3).

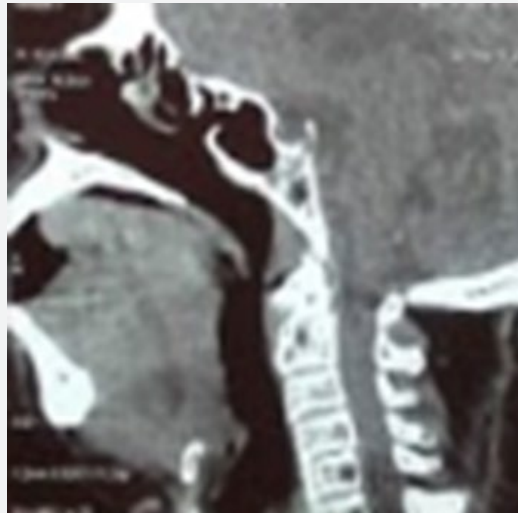


Figure 2: Hematoma of the floor of mouth with superior and posterior displacement of the tongue causing obstruction of the upper airway.



Figure 3: Regression of the hematoma after one week.

Discussion

Oral anticoagulants are very commonly prescribed. Their function is to depress activity of coagulation factors like thrombin, prothrombin, and factors VII, IX, and X [3,4]. Several pathologies require an adequate anticoagulation. Hemorrhage secondary to

anticoagulant therapy is rare. The most common the locations for bleeding are genitourinary, gastrointestinal, cutaneous, and intracranial [5]. Hematoma of the floor of the mouth is rare even though retropharyngeal, laryngeal bleeding have been caused by anticoagulant [6].

We report in this article a case illustrates a very uncommon and life-threatening complication of the acenocoumarol therapy.

The cause of respiratory distress is due to the tongue moved backward and upward like Ludwig's angina [3]. The signs associated to this hematoma are the following: cervical mass, sublingual swelling, ecchymosis or retropharyngeal bulge, tachypnea, and stridor [7]. According to the review of Garcia D, hematoma due to acenocoumarol is rarer than warfarine because of nine cases of hematoma of the floor of the mouth only two were due to the use of acenocoumarol [8,9]. The spontaneous disappearance of the hematoma is the natural course of bleeding. It only occurred if oral anticoagulation was stopped and FFP and/or vitamin K were administered [2,7-9]. As it has been previously observed in our case, the use of subcutaneous heparin or antiplatelet drugs would be desirable if patient needed an ulterior coagulation treatment [2].

In most cases reported in the literature a tracheotomy was temporarily necessary [10] because the strict control of the airway is assured by endotracheal intubation, tracheostomy, or cricothyrotomy [11]. Surgical drainage of the sublingual hematoma was not indicated because it could increase the bleeding as well as the swelling with the result of complete aggravating airway obstruction. However, other authors require this drainage in order to evacuate any collection of blood [8].

Conclusion

Hematoma of the floor of the mouth is a rare but potentially serious complication of acenocoumarol therapy. Reversal of anticoagulation with low threshold for artificial airway placement in the event of airway compromise is the treatment of choice.

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