CASE STUDY

Haematoma of the Floor of the Mouth Associated to Acute Myocardial Infarction

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KEYWORDS

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Abstract

We report the case of an 80-year-old man who developed a haematoma in the floor of the mouth after receiving alteplase in the treatment of an acute myocardial infarction. Both the treatment received and appropriate preventive measures to avoid such haematomas are described.

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PALABRAS CLAVE

Hematoma de suelo oral; Alteplasa; Síndrome coronario agudo

Resumen

Presentamos el caso de un paciente varón de 80 años de edad, ingresado en nuestro hospital por un síndrome coronario agudo tratado con alteplasa, tras lo cual desarrolló un hematoma de suelo oral espontáneo. Describimos tanto el tratamiento recibido como las medidas preventivas para evitar su aparición.

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Introduction

The oral floor and tongue are both generously irrigated by branches arising from the external carotid artery, among which are the lingual, facial and submental arteries. Haemorrhage and haematoma at this level are usually associated with soft tissue or bone trauma of this territory or with certain surgeries on it. Haematomas in the oral floor have also been described in haemophilic patients and in relation to the use of acenocoumarol, streptokinase or heparin. Bleeding complications associated with the use of tissue plasminogen activator have been well documented. However, we have registered only 3 cases of oral floor haematomas related to using alteplase.

Clinical Case

We report the case of an 80-year-old male patient admitted to our hospital due to an acute coronary syndrome with posterior inferior ST elevation myocardial infarction.
Figure 1  Anterolateral view of the haematoma affecting the oral floor that compromises the volume in the oral cavity.

(STEMI). Four hours after the onset of chest pain and having established the diagnosis of STEMI, we began conventional therapy (aspirin, clopidogrel, heparin sodium and thrombolysis with 9000 units of alteplase). After 90 min, not fulfilling reperfusion criteria, we proceeded to perform a rescue percutaneous coronary intervention (PCI) of the right coronary artery.

Immediately after completing the thrombolysis, a haematoma appeared in the oral floor, with progressive growth (Figs. 1 and 2). After 4h, the patient began to show obvious signs of airway involvement. Being unable to carry out conventional intubation, we proceeded to perform an emergency tracheostomy under local anaesthesia. Once the surgery was completed, we explored the oral area thoroughly, finding no traumatic lesions that explained the haematoma. Nevertheless, we did confirm the synchronous presence of other smaller haematomas located in the abdomen, right forearm and left hand. We also observed epistaxis and haematuria.

Discussion

Any unrecognised oropharyngeal trauma can lead to haematomas in the oral floor or upper airways, especially severe in patients with coagulation disorders. The genesis of these haematomas is often related to lesions secondary to bites in the context of an episode of syncope or convulsive crisis. In this context, it is crucial to conduct a thorough exploration of the oral mucosa to rule out an aetiopathogenic cause of the haematoma. In our patient, we could not identify any suspicious area, so we must accept that it originated spontaneously.

The indexed literature contains 3 similar cases. Two of them occurred in the context of acute coronary syndrome and another during a transient ischemic attack. On two occasions, no traumatic injury was identified to justify their appearance.

At any rate, it is important to consider that, in critically ill patients with coagulation disorders, any manoeuvre aimed at maintaining airway patency, including both the placement of a Guedel airway and naso- or endotracheal intubation, may become an involuntary aetiopathogenic agent of the haematoma.

Another point to consider is the type of measures to be applied after the onset of this complication and their adequate timing. Surgical drainage is not usually indicated in the initial moments of the haematoma, due to the diffuse and widespread nature of the bleeding. At this stage, a close control of size and growth rate together with an evaluation of the position and size of the tongue are considered as appropriate measures. For some authors, the administration of corticosteroids, antibiotics and oxygen therapy is recommendable. If the haematoma is self-limited, its reabsorption usually occurs around the tenth day.

Uncontrolled progression of the episode generally leads to a clinical situation similar to Ludwig angina, characterised by oral floor elevation, increased tongue volume with superior and posterior displacement and loss of mobility. The presence of dysarthria, dysphagia, drooling and dyspnoea require the adoption of an urgent therapeutic attitude to preserve airway patency. Treatment can range from intubation (orotracheal or nasotracheal) to cricothyroidotomy or tracheostomy.

According to the latest protocols, an active major haemorrhage would require performing a primary percutaneous coronary intervention at the expense of thrombolysis. Consequently, it seems advisable to carry out an oropharyngeal examination before performing thrombolysis, especially in patients who have suffered a loss of consciousness, trauma or manipulation of the airway in the context of cardiopulmonary resuscitation.
Conflict of interests

The authors have no conflicts of interest to declare.

References