

# Angina Bullosa Hemorrhagica: Case Report

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## ABSTRACT

The present paper presents the case report of a patient who developed abrupt hemorrhagic angina bullosa during a dental care. Hemorrhagic bullous angina is characterized by recurrent disorder with the appearance of blood bubbles in the oral mucosa. They are subepithelial and asymptomatic lesions mainly in the soft palate region. The patient was attended at the dental clinic of the University of West of Santa Catarina, Joaçaba, Brazil, in need of prosthetic surgeries, during which she developed hemorrhagic bullous angina. The prognosis is good and treatment usually involves only palliative measures. Bullous angina lesions can be easily confused with other diseases of the oral mucosa. Therefore, the presentation of this benign disorder is important to be distinguished from other more serious lesions that present the same clinical characteristics. It is important to look for the causes that trigger the episode of hemorrhagic bullous angina and to rule out other possible alterations, emphasizing in this phase the primordial function of a well-made anamnesis.

**Key words:** Adrenal cortex hormones, palate soft, pathology oral

## INTRODUCTION

**H**emorrhagic bullous angina (HBA) is a disorder not related to the systemic causes or disease vesiculobullous characterized by one or more subepithelial vesicle with blood in the oral mucosa and oropharyngeal, more common in the soft palate.<sup>[1]</sup> It can occur in men and women, especially above middle age, that fact there has never been a report in children under 10-year-old.<sup>[1]</sup>

According to Bahdam (1967) cited by Santos *et al.*,<sup>[2]</sup> blood blisters are not attributed to blood dyscrasia, systemic disorder, or vesiculobullous disorder.

The HBA usually develops through local trauma but could be related to the prolonged use of inhaled steroids and diabetes

mellitus. Its etiology remains uncertain. The condition appears to be associated with an individual's predisposition, such as poor adhesion between the epithelium and the connective tissue of the mucosal or even poor adhesion of the mucosal vessels.<sup>[3]</sup>

## CASE REPORT

A 58-year-old female patient, sought the Dentistry Service at the University of West of Santa Catarina- SC, with the chief complaint of replacement of the upper and lower total dentures. Anamnesis was performed and the patient reported use of formoterol fumarate dihydrate + budesonide (Foraseq®) and salbutamol sulfate (Aerolin®). The clinical examination indicated the need for pre-prosthetic surgeries such as correction and reduction of soft tissue of the right

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and left maxillary tuberosity besides and frenectomy. Fasting blood glucose and complete blood count were requested.

In the second session, with the examinations into the normal standards (hemogram, prothrombin time 11.5 s and partial activated thromboplastin time 25.0 s), were planned the surgeries of correction of left tuberosity and frenectomy. During the first procedure (frenectomy), bleeding remained normal and blood pressure was stable. After the upper lip frenulum was sutured, the left tuberosity was anesthetized. At this time, blood bubbles were observed on the soft palate<sup>[1,2]</sup> of various sizes [Figure 1], which were not present at the beginning of the first surgical procedure. The bubbles arise despite the little use of the suction unit. The session was interrupted and the patient was followed up on the days that followed and the blisters burst and disappeared without sequelae at the end of 10 days.

## DISCUSSION

HBA is characterized by the rapid formation of a blood bubble/blister. Lesions may occur in the mucosa, lip, and lateral surface of the tongue, especially in the soft palate region. It can affect men and women, usually older. The term “angina” comes from the sensation of shock that the appearance of the bubbles can cause. The main causes are associated on traumas and the prolonged use of inhaled steroids, but some studies relate diabetes mellitus as a possible cause. The differential diagnosis should be performed with complementary examinations, for example, hematological examinations and some histological studies to rule out pemphigus and pemphigoid hypothesis.<sup>[1]</sup> In this case, any other pathology than asthma was excluded from the study, the patient was healthy and exhibited all the main normal complementary examinations (fasting glycemia, coagulogram, and hemogram).

Chronic use of inhaled corticosteroids is known to possibly affect collagen synthesis and reduces its total mucosal



**Figure 1:** Blood bubbles in soft palate

content causing atrophy of the mucosal epithelium. In addition, the elasticity of the tissue may decrease with maturation of these fibers. This would reduce the blood supply in these regions, which would explain the development of HBA, even without major on-site trauma. Some authors still associate HBA with the use of inhaled corticosteroids by patients with asthma and chronic obstructive pulmonary disease based on studies with patients who have used it for more than 5 years.<sup>[4]</sup> In fact, the patient reported in the study using medication (Foraseq® and Aerolin®) for regular treatment of asthma, which caused the appearance of blisters on the soft palate.

In a reported case by Garlick and Calderon,<sup>[5]</sup> trauma during routine odontological procedures could occur as a precipitating factor in the appearance of HBA. This fact is reinforced by Daly (1988) who describes the appearance of the bubbles after contact of the mirror used in photographic documentation, appearing almost instantaneously. These reports are in agreement with our study, which the patient also developed HBA fast,<sup>[2]</sup> however, without having received mechanical trauma at the site.

There are case reports associating the occurrence of these lesions in patients submitted to hemodialysis,<sup>[6]</sup> hypertension, and even the ingestion of hot or very spicy foods.<sup>[7]</sup> The latter, however, described two cases of HBA without any evidence of trauma. In turn, there are also reports of HBA after the ingestion of hard or crunchy foods as triggers of the lesions.<sup>[8]</sup>

Although the risk of choking may be remote, blisters on the palate or oropharyngeal region should be ruptured to prevent possible airway obstruction.<sup>[3]</sup>

The rupture usually occurs during meals and healing takes normally of 7–10 days. As reported by Rai *et al.*,<sup>[9]</sup> the blisters lasted only a few minutes and then ruptured, leaving shallow ulcers that healed without pain in both cases. The treatment is basically palliative, with the use of chlorhexidine mouthwash 0.12–0.20% twice a day for 1 min as prevention of secondary infections. However, for painful ulcers,<sup>[8]</sup> they recommend the use of benzydamine hydrochloride for the relief of symptoms. In general, the prognosis is good. In this case, the patient evolved well without any complications.

Abrupt onset, spontaneous origin, constant presence of blood within the blister, rapid recovery, and absence of local specific cause, or other systemic disorder distinguishes HBA from membranous pemphigoid, bullous pemphigoid, bullous lichen planus, epidermolysis bullosa, dermatitis herpetiformis, dermatosis by linear IgA, and oral amyloidosis.<sup>[6]</sup> According to Rai *et al.*,<sup>[9]</sup> thrombocytopenia may also be a differential diagnosis.

The classic evolution, the morphology of the lesions, anamnesis well performed, and absence of other symptoms were essential for the correct diagnosis in this case.

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**How to cite this article:** Imanishi SAW, Ramos GO, Mattei BM, Fontana NS, Flesch E. Angina Bullosa Hemorrhagica: Case Report. *J Clin Res Dent* 2018;1(1):1-3.