

Angina bullosa haemorrhagica: Accelerated healing following kiwi consumption



Jonathan Lai, BA,^a and Irene Lu, MD^b

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INTRODUCTION

Angina bullosa haemorrhagica (ABH) is a rare disorder marked by the sudden appearance of blood-filled blisters affecting the mucosal surfaces of the oral cavity and oropharynx. The disorder often results in the rupture of the blister and potential associated discomfort. Treatment strategies usually entail simple observation and palliative care. We describe a case of recurrent ABH affecting the left buccal mucosa and subsequently the left lower lip of an elderly man who experienced rapid resorption of the blister and accelerated painless healing following kiwi fruit consumption.

CASE REPORT

A 65-year-old man presented with the sudden onset of a blood-filled blister on the left buccal mucosa that occurred while he was eating a cookie. The patient reported localized irritation prior to the eruption. Clinical exam revealed an approximately 1.5-cm blood-filled tense bulla on the left buccal mucosa. There were no other bullous lesions elsewhere on exam. The patient is a close relative of the dermatologist and was working in her office when the lesion erupted.

Within minutes following the eruption the patient consumed green tea and raw garlic without improvement. Then he happened to consume 2 room temperature organic golden New Zealand kiwi fruit. Within minutes the lesion shrunk rapidly (Figs 1 and 2).

Several months later the patient reported acute onset of another blood-filled blister on the mucosal surface of the left lower lip after consuming an

Abbreviation used:

ABH: angina bullosa hemorrhagica

orange. The lesion was approximately 5 mm. Within 1 hour of the onset of the blister he consumed an organic green kiwi. He reported marked resorption of the blister within minutes (Figs 3 and 4). All photos were taken by the dermatologist.

The blister did not rupture and he denied ulcer formation, associated bleeding, or pain. The patient reported that the lesion healed faster since there was no ulceration. He reported a history of similar lesions after consuming foods that caused localized irritation. These blisters usually ruptured because of self-induced or accidental trauma. A painful ulcer would then develop lasting several days before healing without scarring. In contrast, in this case, the blister did not rupture but rather shrunk rapidly within minutes following kiwi consumption. He experienced painless accelerated healing.

The patient has a history of hypertension with no other comorbidities. Complete blood count and coagulation studies were within normal limits.

DISCUSSION

ABH is an uncommon disorder marked by the sudden appearance of blood-filled blisters usually affecting the mucosal surfaces of the oral cavity and oropharynx. The disorder has a benign course with rupture of the blisters and gradual healing of the wound site over the course of 1 to 2 weeks. Its

From the Department of Dermatology, Johns Hopkins School of Medicine, Baltimore, Maryland^a; and Department of Dermatology, North Shore University Hospital, Manhasset, New York.^b
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Correspondence to: Jonathan Lai, BA, Department of Dermatology, 929 N Wolfe St Apt 1513A, Baltimore, MD 21205. E-mail: jlai23@jh.edu.

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Fig 1. Well-defined blood-filled bulla on the *left buccal mucosa* (3 PM).



Fig 3. Well-defined blood-filled bulla on the *left lower lip* (9:19 PM).



Fig 2. Marked resorption of the bulla within minutes following kiwi fruit consumption (3:26 PM same day).

etiology is unknown. It typically occurs after food consumption and commonly affects middle-aged and elderly patients. We report a case of a patient with recurrent ABH who experienced rapid resorption of the blisters within minutes of kiwi fruit consumption.

The diagnosis of ABH is typically made clinically. It should be distinguished from other bullous

disorders which are associated with systemic or hematologic disorders. Patients with ABH meet 6 of 9 criteria, including: (1) clinically visible hemorrhagic bullae with a history of bleeding and (2) exclusively oral or oropharyngeal localization. Other criteria are: (3) palatal localization, (4) triggering event or promoting factors, (5) recurrent lesions, (6) favorable evolution without scarring within a few days, (7) painless or associated with a tingling or burning sensation, (8) normal platelet count and coagulation studies, and (9) negative direct immunofluorescence.¹ Our patient had clinically visible hemorrhagic bullae with a history of bleeding, and exclusively oral localization. His blister was preceded by possible trauma. He has a history of recurrent lesions, and he experienced spontaneous resolution without scarring. He had normal platelet and coagulation studies. He fulfilled 7 of the 9 criteria including 1 and 2.

Mortazavi et al² demonstrated that while ABH is more common on the palate, other sites of involvement include the tongue, buccal mucosa, lips, floor of the mouth, and uvula. The most common setting was trauma secondary to eating, although it has been associated with steroid inhalers and dental procedures.¹ Other associated diseases include hypertension, diabetes, arthritis, kidney, gastrointestinal and autoimmune diseases, and COVID-19.³

The etiology of ABH is unclear. It has been hypothesized that weak attachment between the epithelium of the mucosa and corium or weak anchorage of the mucosal vessels may result in



Fig 4. Marked resorption of the bulla following kiwi fruit consumption (9:57 PM, same day).

subepithelial hemorrhage. Histopathologic examination of lesions reportedly has shown a subepithelial blood-filled bulla associated with a nonspecific mononuclear inflammatory cell infiltrate.⁴

Treatment typically entails supportive care since the lesion usually resolves spontaneously within 1 to 2 weeks. However, the lesion is often uncomfortable and clinicians often advise patients to simply observe the lesion. In cases of potential aspiration or airway obstruction, surgical drainage may be necessary.⁵ When lesions rupture, the resulting ulcers may become painful and infected.⁶ Chlorhexidine gluconate to prevent infection and ascorbic acid may be beneficial.¹

The accelerated healing of ABH following kiwi fruit ingestion has not previously been reported. Aside from its very high ascorbic acid content, kiwi fruit also contains a protein dissolving enzyme known as actinide that acts like collagenase. It also may have pro-angiogenic and antibacterial

properties that may accelerate wound healing. Prior studies report promising results in the context of treatment of burn wounds, chronic bedsores, and diabetic foot ulcers.⁷⁻⁹

Treatment strategies for ABH which can induce rapid resorption of blisters, avoid ulceration, and accelerate painless healing of the lesion can be beneficial to patients. We suggest that kiwi fruit may benefit patients who suffer from this condition. Further studies are needed to explore the potential benefit of this intervention in the treatment and management of ABH.

Conflicts of interest

None disclosed.

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