

WHAT'S YOUR DIAGNOSIS?

PEER REVIEWED

What Caused This 7-Year-Old Girl's Facial Bruise?

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A 7-year-old girl with a history of asthma and allergic rhinitis presented to her primary care physician (PCP) for a follow-up visit after an emergency department (ED) visit the previous day for a barking cough.

History. The day prior to presenting to our clinic, the patient had experienced a barking cough, watery eyes, and a runny nose. She had used albuterol (delivered via metered-dose inhaler

with spacer) without improvement of her cough. For that reason, she had been taken to the ED.

In the ED, there were concerns for croup as opposed to an asthma exacerbation. For that reason, she had been given 14 mg of oral dexamethasone (0.6 mg/kg ordered with maximum dose of 14 mg, based on the patient's weight of 33.3 kg). After a few hours, the patient had reported decreased cough and more-comfortable breathing. No albuterol had been administered in the ED. She had been advised to follow up with her PCP the next day.

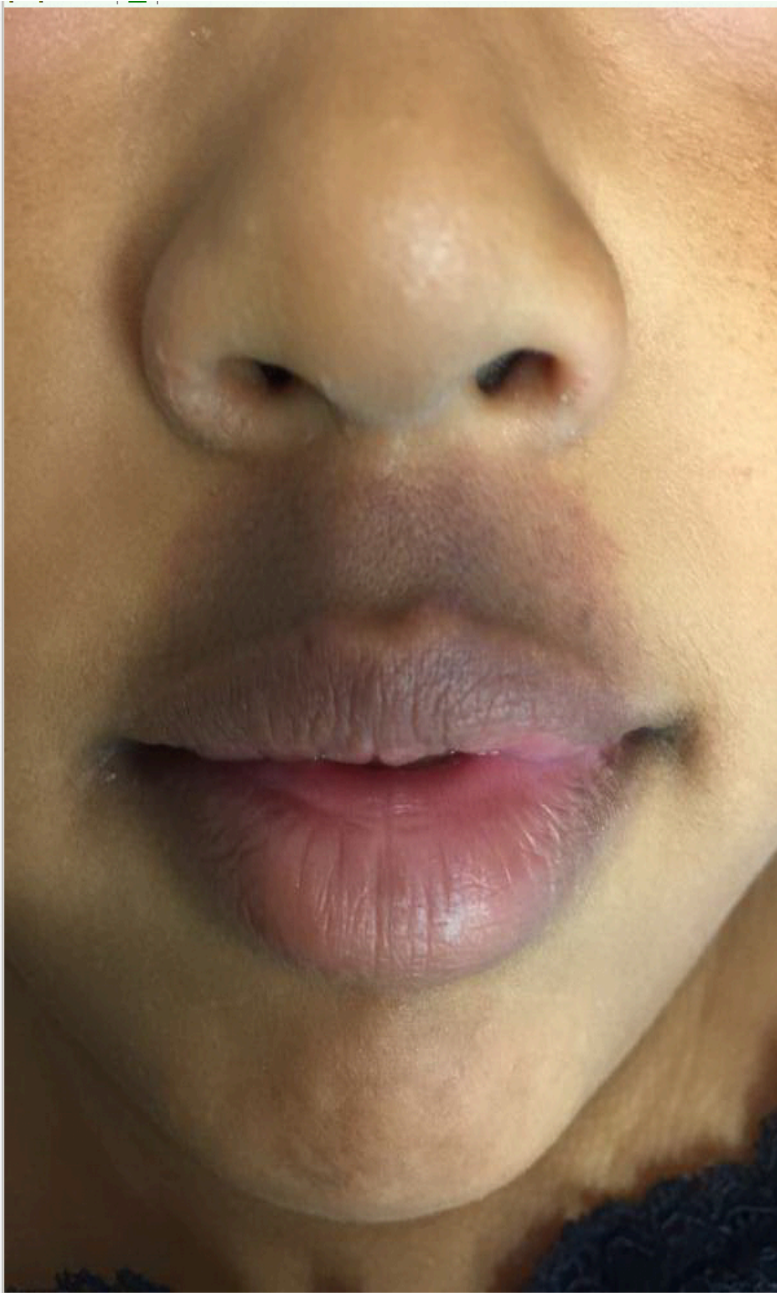
In our clinic the next day, the patient and her mother had no concerns related to her breathing or coughing. However, the family had noticed the appearance of a new bruise between the child's nose and mouth following her ED visit.

The bruise was localized to her face and was not tender. There was no known history of trauma or injury. The patient had had no fevers, night sweats, pallor, easy or prolonged bleeding, or unusual bruising in other areas.

Physical examination. Findings of a complete review of systems were negative except for the bruise. There was no family history of bleeding disorders.

On physical examination, the patient had a temperature of 37.1°C and weighed 33.3 kg (91st percentile). She appeared healthy and well developed and was in no acute distress. Head, eyes, ears, nose, and throat examination findings were normal, as were cardiovascular, lung, and abdominal examination findings.

On examination of her skin, she had purplish bruising on her philtrum, upper lip, sides of her mouth, and just below her lower lip in a circular pattern (**Figure**). The central portion of the lower lip was spared. The remainder of skin examination findings were unremarkable, with no other bruising, petechiae, or purpura noted.



Based on the patient's history and examination findings, what explains the girl's bruise?

- A. Traumatic injury
- B. Self-mutilation
- C. Suction-induced bruise
- D. Child abuse

Answer on next page.

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Answer: C. Suction-induced bruise, or “love bite”

Further questioning of the child and mother revealed that the child had been playing with a soda bottle. The mother did witness her sucking on the mouth of the bottle during her ED stay. After obtaining this critical piece of information, it was determined that the child had a self-inflicted suction-induced bruise.

Discussion. The concept of a suction-induced bruise, or “love bite,” is familiar to most people yet is incorrectly named. In reality, this bite is a “gentle nibbling” of the skin that can produce a bruise due to a “strong, continuous suction kiss.”¹ Therefore, any act that results in this constant suction has the potential to result in a bruise, as was the case with our patient.

The mechanism of action is when suction on the skin bursts small blood vessels just under the skin's surface.

This case is unique compared with previous reports of suction-induced bruises in children in that this bruise resulted from an accidental, isolated incident. In 1 previous case, an 8-year-old girl presented with bruises on the left forearm. These bruises continued to form on her left forearm only during her hospitalization and, despite the child's denial, were later found to be self-induced by “suckling and pinching.”² In a similar case, a 10-year-old boy denied self-inflicting his recurrent upper-arm bruises, yet he no longer developed these marks after consulting with mental health services.³ In another case, a 4-week-old infant was found to have bruises on his forearm that initially had been thought to be abuse-related. However, the bruises later were found to be self-induced through sucking.⁴

Outcome of the case. Our 7-year-old patient's only bruise was located between her nose and mouth. When staff discovered that the bruise was self-induced by the child sucking on the mouth of a bottle, the patient was embarrassed. The accidental nature of the bruise and our patient's embarrassment stand in sharp contrast to the 2 previously reported cases of suction-induced bruises in similar-aged patients. Making factitious purpura a highly unlikely diagnosis in

our patient's case. Additionally, our patient's bruise was caused by sucking on a bottle rather than sucking directly on skin at the site of the bruise, as had occurred in the 3 cases reported in the literature.

References:

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