CASE IN POINT

A Nervous Recipient of a "Tongue Lashing"

Daniel G. Federman, MD; William Ackley, MD; and Rebecca Baldassarri, MD

A veteran with a history of mental illness and drug and alcohol misuse developed a bleeding lesion on his tongue, which raised concerns of self-injury.

Daniel Federman is the Acting Chief of Medicine at the VA Connecticut Healthcare System in West Haven, Connecticut. **William Ackley** is an Internal Medicine Resident, and **Rebecca Baldassarri** is a Pathologist, both at Yale University School of Medicine in New Haven.
Correspondence: Daniel Federman (daniel.federman@va.gov)

Self-injurious behaviors are common and can be either volitional or unintentional. Often people who perform these behaviors receive "tongue lashings" from family, friends, and loved ones. We recently treated a patient whose lesion in the oral cavity was thought to be caused by some form of self-injury, though the prognosis clearly depended on the true culprit. It is important for clinicians to identify the cause of the injury when encountering patients with oral cavity lesions.

CASE PRESENTATION

A 40-year-old white male with a medical history of bipolar disorder, posttraumatic stress disorder, polysubstance abuse, and recently diagnosed temporomandibular joint (TMJ) syndrome was seen in outpatient primary care for a bleeding lesion in his mouth for the past 3 weeks. The lesion was under the surface of his right tongue. He first noted the lesion after he had burned himself tasting some homemade rice pudding while under the influence of marijuana. The next day, an impression was taken of his mouth by a dental assistant who was fitting him for an oral appliance for his TMJ syndrome; according to his history, she did not perform a visual inspection of his mouth nor could he recall his last dental examination. He had neither lost weight nor experienced dysphagia. He was not taking any prescribed medications, had an 8 pack-year history of smoking cigarettes, and had smoked crack cocaine intermittently for several years. The also patient had chewed one-half tin per day of chewing tobacco for 5 years, though he had quit 7 years before presentation. He was consuming 6 alcoholic drinks daily and had no history of chewing betel nuts.

FIGURE 1 Lesion on the Surface of Right Tongue

A nonfriable, 1.5 cm-wide lesion was found on the ventral surface of right tongue.

On physical examination, the patient seemed extremely anxious, but his vital signs were unremarkable. The nasal dorsum was straight, and the nares were widely patent. There were no suspicious cutaneous lesions noted of the face, head, trunk, or extremities. The salivary glands were soft and showed no lesions or masses within the parotid or submandibular glands bilaterally. There was no obvious obstruction of Stenson or Wharton ducts bilaterally. He had normal lips and oral competence. The dentition was noted to be fair.

A nonfriable, 1.5 cm-wide lesion was found on the ventral surface of the right tongue (Figure 1). The tongue was mobile. The mouth floor was soft and without evidence of masses or lesions. The tonsils, tonsillar pillars, palate, and base of tongue did not show any concerning lesions or masses.

The neck revealed a nonenlarged thyroid and no lymphadenopathy. The remainder of the examination was unremarkable.

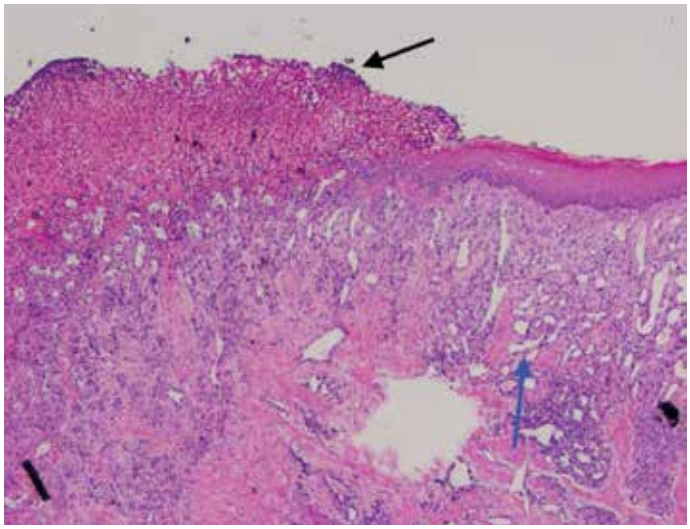
DIAGNOSIS

Given his risk factors of alcohol use disorder and a history of both inhaled and chewing tobacco, oral squamous cell carcinoma (SCC) was considered. The differential diagnosis also included pyogenic granuloma, mucocele, sublingual fibroma, and metastasis to the oral soft tissue. Due to its implications with respect to morbidity and mortality, we thought it necessary to rule out SCC of the oral cavity. SCC comprises more than 90% of oral malignancies, and tobacco-related products, alcohol, and human papilloma virus are well-established risk factors.[1]

Pyogenic granuloma, also known as eruptive hemangioma and lobular capillary hemangioma, is a relatively common benign lesion of the skin and mucosal surfaces that often presents as a solitary, rapidly enlarging papule or nodule that is extremely friable.[2] Interestingly, pyogenic granuloma is a misnomer, since it is neither infectious in origin nor granulomatous when visualized under the microscope and is thought to arise from an exuberant tissue response to localized irritation or trauma. An individual lesion can range in size from a few millimeters to a few centimeters and generally reaches its maximum size within a matter of weeks; they often arise at sites of minor trauma.[3] While the pathogenesis of pyogenic granuloma has not been clearly established, it seems to be related to an imbalance of angiogenesis secondary to overexpression of vascular endothelial growth factor and basic fibroblast growth factor.[4] While they can occur at any age, pyogenic granulomas are frequently seen in pediatric patients and during pregnancy.

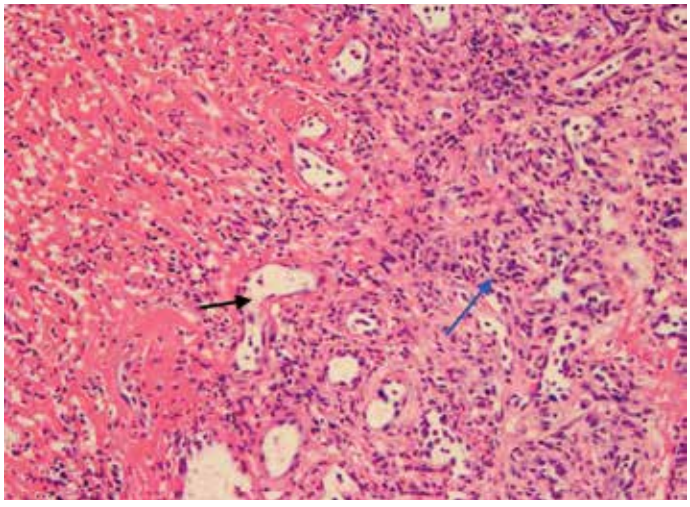
A fibroma, also known as an irritation fibroma, is one of the more common fibrous tumorlike growths and is often caused by trauma or irritation. It usually presents as a smooth-surfaced, painless solid lesion, though it can be nodular and histopathologically shows collagen and connective tissue.[5] While fibromas can occur anywhere in the oral cavity, they commonly arise on the buccal mucosa along the plane of occlusion between the maxillary and mandibular teeth.

FIGURE 2 Ulcerated Polypoid Lesion



The polypoid nature of the lesion is seen with surface ulceration (black arrow) and numerous vascular spaces (blue arrow) (hematoxylin & eosin stain, original magnification x20).

FIGURE 3 Vascular Lesion



This view shows the numerous small vascular spaces (black arrow) and abundant acute inflammation in the stroma (blue arrow) (hematoxylin & eosin stain, original magnification x100).

Mucoceles are the most common benign lesions in the mouth and are commonly found on the lower lip and are mucus-filled cavities, arising from the accumulation of mucus from trauma or lip-biting and alteration of minor salivary glands.[6] Our patient's rapid evolution and history of trauma were consistent with a mucocele. Although the lower lip is the most common site of involvement, mucoceles also occur on the tongue, cheek, palate, and mouth floor.

Metastases to the oral cavity are rare and comprise only 1% of all oral cavity malignancies.[7] Although most commonly seen in the jaw, nearly one-third of oral cavity metastases are in the soft tissue.[8] They generally occur late in the course of disease, and the time between appearance and death is usually short.[8] Our patient's lack of known primary malignancy and lack of weight loss rendered this diagnosis unlikely.

Other possibilities include peripheral giant cell granuloma, a reactive hyperplastic lesion of the oral cavity originating from the periosteum or periodontal membrane following local irritation or chronic trauma,[9] and peripheral ossifying fibroma, a reactive soft tissue growth usually seen on the interdental papilla.[10]

Surgical excision was performed and revealed reactive epidermal hyperplasia, ulceration, granulation tissue formation, and marked inflammation with reactive changes. There was no evidence of malignancy and was interpreted as consistent with pyogenic granuloma (Figures 2 and 3) likely due to the trauma from the thermal burn or poor dentition.

MANAGEMENT

The patient was relieved to be informed of the diagnosis of an unusual presentation of pyogenic granuloma with no evidence of cancer. Current treatment strategies for pyogenic granuloma include surgical excision, shave excision with cautery, cryotherapy, sclerotherapy, carbon dioxide or pulsed dye laser, as well as expectant management. However, recurrence after initial treatment can occur, with lower recurrence rates occurring with surgical excision.[11]

Although we wouldn't state that we gave the patient a "tongue-lashing," we strongly advised him that he return to his dentist and abstain from tobacco products, alcohol, illicit drugs, and taste-testing scalding food directly from the pot.

Author disclosures

The authors report no actual or potential conflicts of interest with regard to this article.

Disclaimer

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