

# Case Report

## Palatine Mass: Physiologic or Pathologic?

**Urgent message:** Urgent care physicians often encounter patients with masses in the mouth. If they are aware of the existence of tori palatinus and know how to treat them, they can reassure patients who may mistake this benign, congenital bony growth for cancer.

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### Introduction

Urgent care and primary-care physicians often must evaluate masses within the mouth. These masses commonly originate from the submandibular or sublingual gland, but a frequently missed lesion is the torus palatinus, found on the hard palate. We present a case of torus palatinus, which put a patient under a lot of stress when she mistook this mass as a cancer of the mouth.

### Case Presentation

A 67-year-old black woman presented to an emergency department (ED) with painful swelling of the roof of her mouth for the preceding 4 days. The patient was visibly anxious and said that she was worried about the possibility of cancer. She said that she had not eaten or drunk anything that could have caused the pain she was experiencing. Also, she reported experiencing no trauma to the hard palate. Her pain and swelling were getting progressively worse, and she rated the pain as a 10 on a scale of 1 to 10, saying that it was constant. Symptoms were unrelieved even when she took a dose of hydrocodone that she had at home.

### Physical Examination

On examination, an ED physician found a 4×4-cm fluctuant



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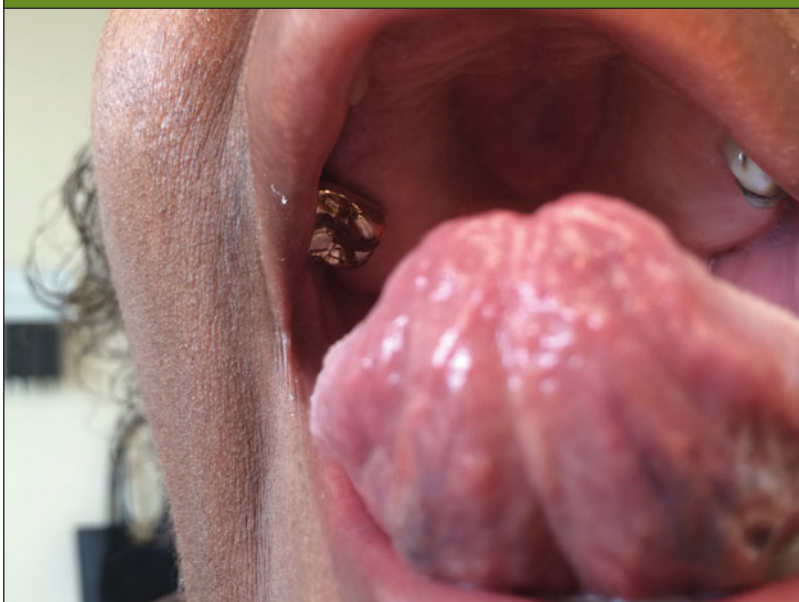
uant lesion on the midline of the palate that was very tender to touch. There was, however, no tenderness in the surrounding teeth or of the tongue. Her speech was clear, and there was no associated drooling or stridor. In the ED, the mass was injected with a small amount (2 mL) of lidocaine and an incision was made across its surface. A small amount of fluid was released, and the lesion decreased in size but remained firm to the touch. The patient was discharged with a prescription of clindamycin.

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**Figure 1. Infected torus palatinus 8 days after drainage in an emergency department.**



**Figure 2. Torus palatinus at a follow-up evaluation after a course of amoxicillin.**



Eight days later, she came to our clinic still reporting a swollen, painful mass on her hard palate and with increased anxiety that it could be a cancer. On physical examination, there was still a noticeable 4×4-cm swelling hanging from the hard palate (Figure 1). The patient reported that the mass had not changed in size and that the intensity of her pain had not diminished since she had visited the ED.

#### **Diagnosis and Follow-Up**

On the basis of findings from her recent medical history and physical examination, we diagnosed the mass as an infected torus palatinus. We arranged an appointment for her to see an otolaryngologist, who agreed with our diagnosis. The patient was counseled about the benign nature of this genetic condition and reassured that it presented no increased risk of cancer. Because she had a previous history of generalized anxiety disorder, we gave her Klonopin (clonazepam), 1 mg daily, to help manage her anxiety; Tylenol with codeine 3, 30 mg every 4 to 6 hours as needed, to help control her pain; and amoxicillin, 500 mg two times a day for 10 days, to treat the infection that was still present.

A follow-up examination revealed that the mass had significantly decreased in size (Figure 2). The patient reported that all pain associated with the mass was gone.

#### **Discussion**

Tori palatinus are bony outgrowths of the hard palate that are covered with a thin and poorly vascularized mucosa. They can be observed in approximately 15% of the general population,<sup>1</sup> with the most common age range for onset being 11 to 20 years.<sup>2,3</sup> The masses are diagnosed only through clinical examination. They have been described as “unilobular, polylobulated, flat and spindle-shaped, . . . located at the midline of the hard palate.”<sup>4</sup> These masses usually show a very slow but pro-

gressive growth spanning many years, although growth has sometimes been observed to spontaneously stop altogether.<sup>5</sup>

Torus palatinus is seen more frequently in women than in men and is also more common in certain ethnic groups (e.g., Inuits) and countries (e.g., Japan, United States).<sup>4</sup> In a study conducted in the United States, 34% of patients presenting with a torus palatinus were black, and 23% were white.<sup>6</sup>

The direct cause of tori palatinus is currently unknown, but the leading theory is based in genetics. In a possibly autosomal-dominant condition, there is a malformation of the palatine shelves of the hard palate during fetal development causing one side to overlap the other. The stress this malformation puts on the hard palate leads to the increased activation of osteoblasts and subsequent bone deposition along the midline of the hard palate.<sup>5</sup> Other proposed causes include superficial injuries,<sup>5</sup> a functional response due to well-developed muscles of mastication, eating habits, states of vitamin deficiency, intake of supplements rich in calcium, or diets rich in fish.<sup>2,4,6,7</sup>

The finding of torus palatinus is usually incidental during an examination at a dental office. Other patients may present to an urgent care center because they have noticed a growth and are worried about cancer. The treatment or removal of most tori palatini is not indicated. Instead, education and reassurance of these patients is recommended. The most common need for removal is due to improper fitting of prosthetic dentures.<sup>4</sup> In these cases, the torus palatinus can be surgically removed under local anesthesia by a trained surgeon.

Tori palatinus can also become infected, as in our patient. It is not clear that drainage of the torus is beneficial or helps to speed up the recovery process. Instead, it can potentially introduce new pathogens into the area and cause more localized infection. An infected mass should instead be treated only with amoxicillin, along with an appropriate pain reliever.

### Conclusion

Torus palatinus is a bony outgrowth of the hard palate that is present in 15% of the population. Urgent care physicians should be aware of the presence of these masses on the hard palate as well as of their benign nature. Patients with tori palatinus should receive education and reassurance about their condition, and amoxicillin if they have an acute infection. ■

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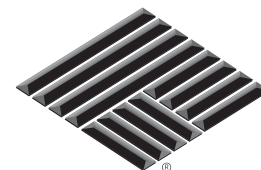


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