

## OLGU BİLDİRİSİ / CASE REPORT

# Pyogenic granuloma of the epiglottis: report of a case

F. Çaylaklı, S. Aslan, F. Bolat, A.N. Erkan, L.N. Özlüoğlu

### Epiglottiste piyogenik granülom: olgu sunumu

Piyogenik granülomlar, çoğunlukla deri ve mukozal yüzeylerde görülen iyi huylu vasküler lezyonlardır. Larenks, piyogenik granülom için nadir görülen bir yerleşim yeridir. Altmış yaşında erkek bir hasta ses kısıklığı şikayeti ile başvurdu. Hastanın hipertansiyon dışında özgeçmişinde belirgin bir hastalığı yoktu. Yapılan indirekt larengoskopisinde epiglottiste nodüler lezyon gözlemlendi ve larenksin bilgisayarlı tomografi kesitinde de lezyon teyit edildi. Direkt larengoskopi eşliğinde cerrahi eksizyon gerçekleştirildi ve histopatolojik tanı piyogenik granülom olarak değerlendirildi. Bu yazıda piyogenik granülom ve nadir yerleşim yeri tartışılmaktadır.

**Anahtar Sözcükler:** Piyogenik granülom, epiglottis.

Türk Otolarengoloji Arşivi, 2007; 45(2): 110-113

### Abstract

Pyogenic granulomas are benign vascular neoplasms that most often arise from the skin and mucous membranes. The larynx is an unusual site for a pyogenic granuloma. A 60-year-old man presented with hoarseness. He had hypertension; otherwise his medical history was unremarkable. Indirect laryngoscopy revealed a nodular lesion on the epiglottis, and this finding was confirmed with computed tomography of the larynx. Surgical excision was performed via direct laryngoscopy, and the histopathological diagnosis was reported as pyogenic granuloma. The report discusses this lesion and the rare location in this case.

**Key Words:** Pyogenic granuloma, epiglottis.

Turk Arch Otolaryngol, 2007; 45(2): 110-113

## Introduction

Pyogenic granulomas are benign, capillary-rich lesions that most often develop from the skin or the mucous membranes. The incidence of pyogenic granuloma is higher during pregnancy, which suggests a possible hormonal regulation.<sup>1,2</sup> The literature contains only a few reports of these lesions affecting the larynx.<sup>2,3</sup> Here we describe a case of pyogenic granuloma in the epiglottis, a very rare site of occurrence.

## Case Report

A 60-year-old man presented to our clinic with hoarseness of 5 months' duration. He also complained of clearing his throat very frequently, and said he had had this problem for several months. His history included a diagnosis of hypertension 3 years earlier, and he had undergone angiography at that time. However, he had never undergone a procedure involving endotracheal intubation.

Fatma Çaylaklı, MD; Sündüs Aslan, MD; Alper Nabi Erkan, MD;  
Levent Naci Özlüoğlu, MD  
Department of Otolaryngology Head and Neck Surgery, Başkent University Faculty of  
Medicine, Ankara

Filiz Bolat, MD  
Department of Pathology, Başkent University Faculty of Medicine, Ankara

Laryngeal examination with videolaryngoscopy revealed a nodular lesion of approximately 0.5 cm diameter on the laryngeal surface of the epiglottis (Figure 1). Computed tomography of the larynx showed no other pathology except this single nodular lesion on the epiglottis (Figure 2). The lesion was excised via direct laryngoscopy with the patient under general anesthesia.

Histological examination of the surgical specimen revealed marked proliferation of granulation tissue, infiltration including acute and chronic inflammatory cells, and numerous dilated blood vessels. Pseudoepitheliomatous hyperplasia was noted within the lesion, and focal ulceration of the overlying epithelium was also observed (Figure 3). These morphologic findings were compatible with a pyogenic granuloma. No recurrence has been detected during one year.

## Discussion

Pyogenic granulomas are also known as lobular capillary hemangiomas. These lesions are thought to form when tissue overreacts to minor trauma, not as a response to infection. Hormonal changes may be another cause. There is no sex or age group predilection associated with pyogenic granulomas.<sup>1,2,4</sup> The

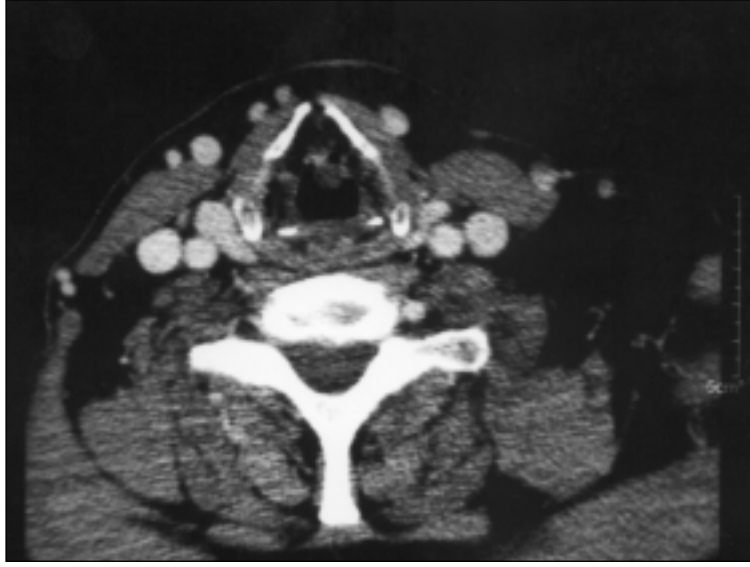
lesions may be pedunculated or sessile, and often have an ulcerated surface. Histologically, they are characterized by a lobular growth pattern of capillaries. The stroma may be fibrous. Secondary ulceration of the overlying epithelium and granulation tissue formation are common. Pyogenic granulomas often show marked mitotic activity, and this should not be mistaken as a sign of malignancy.<sup>1-3</sup>

The literature contains very few reports of pyogenic granuloma of the larynx. However, the information available suggests that prior laryngeal surgery or intubation is important in the development of such lesions.<sup>3,5</sup> Our patient had no history of laryngeal trauma or intubation, but he did complain of frequent need for throat clearing, which may have somehow promoted granuloma formation.

Diagnosis of a pyogenic granuloma can be challenging. Contact ulcers of the larynx and pyogenic granuloma can have similar appearances. The former are superficial ulcerations that develop along the posterior portion of one or both sides of the larynx.<sup>5</sup> Gastroesophageal reflux disease may play a role in the pathogenesis of both contact ulcers and pyogenic granulomas. As mentioned, there is also a theory that pyogenic granulomas are influenced by hormones. However, Marrinan et al. found that pyogenic granulo-



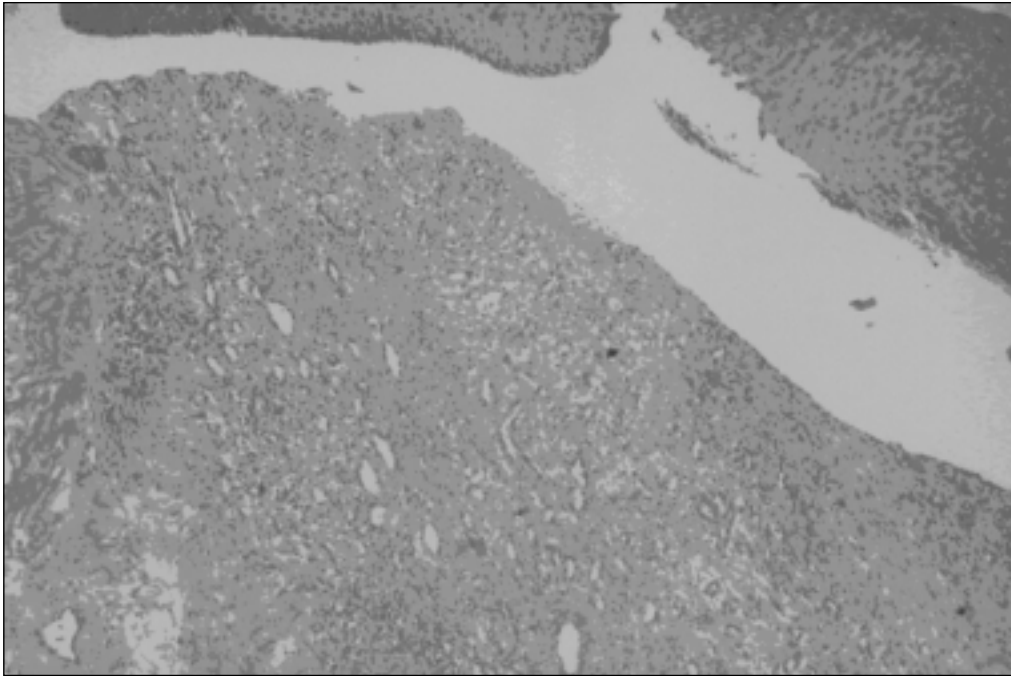
**Figure 1.** The appearance of the nodular lesion on the epiglottis on laryngeal examination with videolaryngoscopy.



**Figure 2.** Axial computed tomography of the larynx showing the nodular lesion on the epiglottis.

mas of the larynx do not express estrogen and progesterone receptors, and that they are unlikely to respond to hormonal therapy.<sup>2</sup>

The treatment of choice for pyogenic granuloma is surgery. In case of gastroesophageal reflux disease, which may play a role in the pathogenesis, patients can



**Figure 3.** A section of the lesion showing pseudoepitheliomatous hyperplasia and granulation tissue formation beneath the surface tissue (HE x200).

be treated with proton pump inhibitors and voice therapy.<sup>2,3</sup> Our patient did not present a history of reflux disease and he had a nodular lesion on laryngeal surface of the epiglottis, that's why we preferred the surgery for treatment and excisional biopsy. With the exception of gingival lesions, recurrence is rare.

Our case had no history of laryngeal trauma or intubation except throat clearing, which may have promoted granuloma formation. This case is of interest due to the unusual laryngeal location of the pyogenic granuloma.

#### References

1. **Van der Waal I, Snow GB.** Benign tumors and tumor-like lesions. In: Cummings CW, Fredrickson JM, Harker LA, Krause CJ, Schuller DE, editors. *Otolaryngology - head and neck surgery*. 3rd ed. St Louis: Mosby Year Book; 1998. p. 1407-17
2. **Marrinan MS, Myssiorek D, Fuchs A, Wasserman P.** Laryngeal pyogenic granulomas do not express oestrogen or progesterone receptors. *J Laryngol Otol* 2001; 115: 798-801.
3. **Sataloff RT, Hawkshaw MJ.** Multiple bilateral vocal fold cysts and recurrent pyogenic 'granuloma'. *Ear Nose Throat J* 2001; 80: 72.
4. **Akyol MU, Yalçiner EG, Doğan AI.** Pyogenic granuloma (lobular capillary hemangioma) of the tongue. *Int J Pediatr Otorhinolaryngol* 2001; 58: 239-41
5. **Wenig BM, Heffner DK.** Contact ulcers of the larynx. A reacquaintance with the pathology of an often underdiagnosed entity. *Arch Pathol Lab Med* 1990; 114: 825-8.

#### Conflict of interest statement:

No conflicts declared.

#### Correspondence: Fatma Çaylaklı, MD

Baskent University Faculty of Medicine,  
Adana Teaching and Medical Research Center  
Department of Otorhinolaryngology Head and Neck Surgery  
Baraj Yolu 1. Durak  
Seyhan-ADANA  
Phone: +90 322 458 68 68 / 2303  
Fax: +90 322 459 91 97  
e-mail: fcaylakli@yahoo.com