An Epiglottic Pyogenic Granuloma Presenting with Spontaneous Hemoptysis

Hailun Wang, BS1; Sandra Cerda, MD2; Harry S. Hwang, MD3
1University of Connecticut School of Medicine
2Boston University School of Medicine, Department of Pathology and Laboratory Medicine
3Boston University School of Medicine, Department of Otolaryngology Head and Neck Surgery

ABSTRACT

Objective: To highlight a very unusual presentation of a relatively common form of inflammatory hyperplasia.

Study Design: Case report and literature review.

Methods: A case of epiglottic pyogenic granuloma of unknown etiology presenting as spontaneous hemoptysis in a 69-year-old female patient is reported.

Results: The anatomic locations and predisposing factors for pyogenic granulomas are described to illustrate the various presenting clinical features. The various treatment options are reviewed.

Conclusions: This case report represents the only documented case of a pyogenic granuloma located on the epiglottis presenting as spontaneous hemoptysis. This is a rare but potentially life-threatening situation as bleeding from this site is difficult to control and may lead to airway compromise. Assessment of the airway and surgical excision are necessary for prevention of recurrent episodes of supraglottic bleeding.

INTRODUCTION

Pyogenic granulomas (PG), a form of inflammatory hyperplasia, develop as a reaction to low-grade irritation, local trauma, and hormonal factors. Jafarzadeh et al. found that PG are predominantly found in women in their twenties while Buchner et al. reported an increased incidence between the 3rd and 6th decades of life.1, 2 PG are common gingival lesions found during pregnancy, likely contributing to the female preponderance.

PG present as smooth or lobulated exophytic lesions, typically small nodules on a pedunculated or sessile base. Younger PG are highly vascular in appearance while older PG are more collagenized and pink in color.1 Their size can range from 1 - 6 centimeters, but rarely exceed 2.5 centimeters.1, 3

They are found on the skin, inside the oral cavity and, very rarely, in the gastrointestinal tract and on the external genitalia.3, 4, 5 75% of oral cavity PG are located on the gingiva. The lips, tongue, and buccal mucosa are the next most common locations.1, 3

In this case report, we describe the first documented case of a pyogenic granuloma located on the epiglottis presenting as spontaneous hemoptysis.

CASE PRESENTATION

A 69 year old woman presented to the emergency room after experiencing a “tickling” in her throat. The patient reported coughing for an hour, after which, she developed hemoptysis. Patient repeatedly coughed up several tablespoons of “quarter-sized clots”.

The patient denied any trauma, epistaxis, dysphagia, odynophagia, neck pain or facial pain. The patient was taking 81 milligrams of aspirin every day. She denied any tobacco or alcohol use.

The patient’s history was significant for a myocardial infarction and subsequent cardiac stent placement one year prior.

Physical Exam Findings:

The patient’s vital signs were stable and the patient was in no acute distress. Her breathing was normal.

Flexible nasopharyngoscopy revealed bright red blood throughout the oral pharynx as well as a clot on the endolaryngeal surface of the epiglottis, which obscured the entire view of the larynx. The blood appeared to be originating from the site of the clot. A repeat scope was performed a few hours later, at which time her hemoptysis had significantly slowed. The remainder of the supraglottic and glottic structures appeared normal and her airway was widely patent.

Laboratory studies revealed a normal complete blood count and coagulation profile.

A CT scan of the neck was unremarkable.

The patient was admitted to the medical intensive care unit for close observation. She did not experience further hemoptysis during her hospitalization. She was discharged after two days with follow-up in the otolaryngology clinic.

Follow-Up Results

Patient underwent elective suspension microlaryngoscopy with surgical excision of epiglottic lesion with CO2 laser.

Gross pathology: 5 millimeter, small, erythematous, pedunculated lesion with a white, fibrinous cap on the endolaryngeal surface of the epiglottis.

Histopathologically demonstrated the lesion to be a benign reactive lesion (pyogenic granuloma).

DISCUSSION

PG are most commonly found on the skin and very rarely in the gastrointestinal tract, with the exception of the oral cavity. Oral PG predominantly develop on gingival tissue (61%), particularly on the anterior maxilla. Based on a review of the literature, our case represents the first reported case of a pyogenic granuloma arising on the epiglottis. Another interesting aspect of this case is the lack of an identifiable trigger leading to the development of this PG. The patient underwent surgery for cardiac stent placement approximately one year prior to presentation. PGs typically develop over the course of weeks to a few months and are most likely to bleed while in the early stages of development, when they are most vascular. This makes it unlikely that intraoperative trauma (e.g. during intubation) would lead to development of a pyogenic granuloma this long after the inciting event.

There are several protocols for the removal of granulomas. Surgical excision results in low recurrence rates and is the treatment of choice, except in cases where significant deformity would result. Other treatment modalities include laser removal, cryosurgery, sclerotherapy, intraligamental injections and observation.12, 13 It has been proposed that laser may be superior to cold knife excision due to a lower risk of bleeding.14

This report represents the first documented case of a pyogenic granuloma arising from the epiglottis. While this is a rare presentation, it is potentially life-threatening situation as bleeding from this site may be difficult to control and lead to airway compromise. Assessment of the airway is paramount and surgical excision may be necessary for prevention of recurrent episodes of pharyngeal bleeding.

REFERENCES