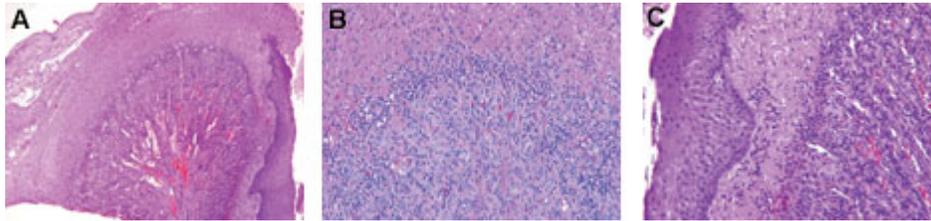


## Larynx contact ulcer

Lester D.R. Thompson, MD



*Figure. A: The surface is ulcerated and replaced by fibrinoid necrosis. A granulation-type tissue response is seen in the center of the field. B: The granulation-type tissue with inflammatory cells is covered by fibrinoid necrosis (pink material at the top). C: Surface reepithelialization occurs with time, but the fibrinoid necrosis is still present in this healing contact ulcer. Granulation tissue is seen on the right.*

A larynx contact ulcer, also known as a *pyogenic granuloma*, is a benign lesion that is most common among adult men. Patients present with hoarseness and/or throat pain, and they often experience chronic throat-clearing or habitual coughing. Contact ulcer is associated with vocal abuse, intubation, and acid regurgitation. Intubation-induced contact ulcer is more common among females, especially in an emergent setting when an inappropriately sized endotracheal tube has been placed. Gastrolaryngeal reflux or gastroesophageal reflux disease (GERD) is frequently missed because physicians do not correlate the nonspecific gastric symptoms with the laryngeal symptoms. A hiatal hernia, peptic esophagitis, or gastritis can cause acid reflux, usually during sleep, thereby leading to the development of a contact ulcer without the cause being obvious to the patient.

Contact ulcer usually appears as an ulcerated, polypoid, or nodular mass (figure, A), and it most often involves the posterior vocal fold. Lesions are red to tan-white, as large as 3 cm, and frequently involve both vocal folds ("kissing ulcer").

The surface is ulcerated and covered by fibrin and/or fibrinoid necrosis overlying an exuberant granulation tissue. The vessels in the granulation tissue are lined with plump reactive endothelial cells, which are surrounded by acute and chronic inflammatory cells and histiocytes (figure, B). With the progression of time, the chronic phase of the disease may include the development of an irregular hyperplastic epithelium resulting from the regenerative surface reepithelialization. A residuum of fibrinoid necrosis is still identified below the surface (figure, C).

The diagnosis of contact ulcer is usually based on both clinical and pathologic findings, as the histologic findings are often nonspecific. The correct diagnosis allows for the appropriate identification and removal of the specific cause, which can obviate the morbidity associated with surgery.

### Suggested reading

Thompson LD. Diagnostically challenging lesions in head and neck pathology. *Eur Arch Otorhinolaryngol* 1997;254:357-66.  
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.