

# Lingual hematoma and heparin-induced thrombocytopenia: A case report

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## Abstract

*Lingual hematoma is a rare but potentially fatal cause of upper airway obstruction. Patients receiving anticoagulants such as heparin can suffer from significant complications of these medications. Not only does heparin exert effects directly on the coagulation cascade, but it has the potential to cause thrombocytopenia by stimulating formation of antibodies against platelets. We present the case of a patient being treated with heparin for a deep-vein thrombosis, who subsequently developed heparin-induced thrombocytopenia and lingual hematoma, necessitating tracheotomy.*

## Introduction

Lingual hematoma has been described as one cause of upper airway obstruction.<sup>1-16</sup> Because respiratory compromise often occurs precipitously in patients with lingual hematoma, the importance of recognizing this unusual clinical entity early in its course and taking the appropriate steps to secure the airway cannot be overstated. We describe a previously unreported cause of lingual hematoma and subsequent upper airway obstruction requiring surgical intervention.

## Case report

A 44-year-old woman with no significant medical history was admitted to an outside hospital for treatment of right lower extremity (RLE) deep-vein thrombosis. She was started on warfarin and intravenous (IV) heparin, but she soon developed bloody diarrhea and abdominal pain. Both anticoagulants were discontinued, and

vitamin K was administered. Of note, a nasogastric tube (NGT) was placed and removed to rule out an upper gastrointestinal source of her bleeding. Gastric lavage was negative.

On hospital day 2, an inferior vena cava filter was placed to reduce the likelihood of pulmonary embolism. Later that day, the patient's abdominal pain worsened. Computed tomography (CT) suggested ischemia of the left colon, and she was taken to the operating room (OR). Exploratory laparotomy confirmed left colonic ischemia, and left hemicolectomy was performed, with placement of another NGT. On hospital day 5, the patient had progressive RLE pain and edema, as well as impending gangrene of her right toes; therefore, IV heparin was restarted, and she returned to the OR for RLE venous thrombectomy.

The NGT was removed on hospital day 8, causing paroxysms of violent coughing. Later that day, the patient complained of dyspnea and dysphagia. Progressive ecchymosis and swelling were noted in the floor of her mouth (FOM) and anterior neck, with superior displacement of her tongue. Her voice became hoarse and then muffled, and she developed moderate inspiratory stridor. However, she required minimal supplemental oxygen. IV heparin was discontinued, and an emergent otolaryngology consult was obtained.

Flexible fiberoptic laryngoscopy demonstrated diffuse ecchymosis and edema of the base of the tongue and supraglottis; the patient's true vocal folds could not be visualized. The patient was again taken to the OR, where an uncomplicated tracheotomy was performed under local anesthesia. Protamine was given during the procedure, and methylprednisolone was started postoperatively. Edema of the tongue, FOM, and anterior neck caused the patient's tongue to protrude from her mouth (figure 1).

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