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# American Journal of Emergency Medicine

journal homepage: [www.elsevier.com/locate/ajem](http://www.elsevier.com/locate/ajem)

## Case report

# Intramural hematoma of the esophagus after thrombolysis for ischemic stroke<sup>☆</sup>



## Abstract

Intramural dissecting hematoma is an unusual esophageal condition with a threatening presentation but excellent prognosis when managed conservatively. We report the case of an 88-year-old woman who developed an intramural hematoma of the esophagus after intravenous thrombolysis for an acute ischemic stroke. Before thrombolysis, nasogastric intubation was attempted unsuccessfully. She was kept on nil by mouth, intravenous hydration, proton pump inhibitor, antiemetics, and an antibiotic initiated 2 days before for periodontal disease. The esophageal hematoma regressed, and she resumed oral diet asymptotically. To our knowledge, this is the first report of this type of lesion after thrombolysis for an ischemic stroke. A brief discussion and literature review are presented.

An 88-year-old woman presented to the emergency department with right conjugate gaze deviation, left central facial palsy, and left hemiparesis (National Institutes of Health Stroke Scale (NIHSS), 11). She had a prior history of arterial hypertension and dyslipidemia and was antiaggregated with acetylsalicylic acid. Two days before, she had initiated amoxicillin for periodontal disease. Brain computed tomographic (CT) scan showed no acute vascular lesions. An ischemic stroke was presumed, nasogastric intubation was attempted unsuccessfully, and thrombolysis with intravenous alteplase (0.9 mg/kg) was administered 120 minutes after symptoms onset. She was admitted to the stroke unit and gradually recovered from her neurologic deficits persisting only mild facial asymmetry (NIHSS, 1). Reevaluation brain CT scan showed an acute ischemic lesion in the cortical territory of right median cerebral artery and a minor left parietal hematoma. Further investigation revealed atrial fibrillation, and a cardioembolic stroke was assumed.

On the third day after admission, she presented retrosternal discomfort on swallowing and a single episode of blood-streak food vomit. She remained hemodynamically stable, but hemoglobin level dropped from 11.7 to 8.1 g/dL. Upper endoscopy showed a small clot immediately below the cricopharyngeus and, distally, a wide elevation of purplish esophageal wall causing a marked narrowing of the esophageal lumen. Thoracic CT scan confirmed a tubular thickening of the esophagus with a longitudinal extension of approximately 20 cm, suggesting an extensive intramural hematoma (Figure). Gastrografin swallow showed no leaks.

Amoxicillin was maintained for 7 days, and the patient was kept on nil by mouth, intravenous hydration, proton pump inhibitor, and antiemetics. Ten days after, CT scan showed partial resolution of the esophageal thickening with no oral contrast leaks.

Anticoagulation with enoxaparin was initiated 7 days after detection of the hematoma, without complications. Oral intake was resumed with

liquids on the second day after diagnosis and progressed gradually to her regular diet.

This case describes an esophageal dissecting intramural hematoma after trauma during attempt for nasogastric intubation and facilitated by thrombolysis.

Esophageal intramural hematoma is a rare and underrecognized condition. It is more common in women, and its incidence increases with age [1]. Almost 80% of patients present at least 2 of the 3 typical features: chest pain, hematemesis, and dysphagia/odynophagia [2]. Recognition of esophageal hematoma is important, as it may mimic other diseases [3] (eg, myocardial infarction or pulmonary embolism), which may require treatments that are contraindicated in the presence of a hematoma.

Computed tomographic scan with both oral and intravenous contrasts is the preferred investigation method. It can identify the hematoma, assess associated complications, and exclude other differential diagnoses [4,5]. Upper endoscopy usually reveals a large fluctuant purplish hematoma compressing the lumen with pale mucosa over its surface [5].

Once diagnosis has been established, conservative treatment with intravenous fluids, antiemetics, and proton pump inhibitors is recommended, with resolution of symptoms occurring within 7 to 14 days without sequelae in most cases [4,5].

There are few reports of intramural esophageal hematomas after thrombolysis for myocardial infarction [6] or pulmonary embolism [7], after placement of nasogastric [8] or orotracheal [1] tubes. To our knowledge, this is the first report of this type of injury after thrombolysis for an acute ischemic stroke, a situation where trauma from nasogastric tube placement is common. Awareness for this condition is, therefore, vital.

A written authorization was obtained from the patient.

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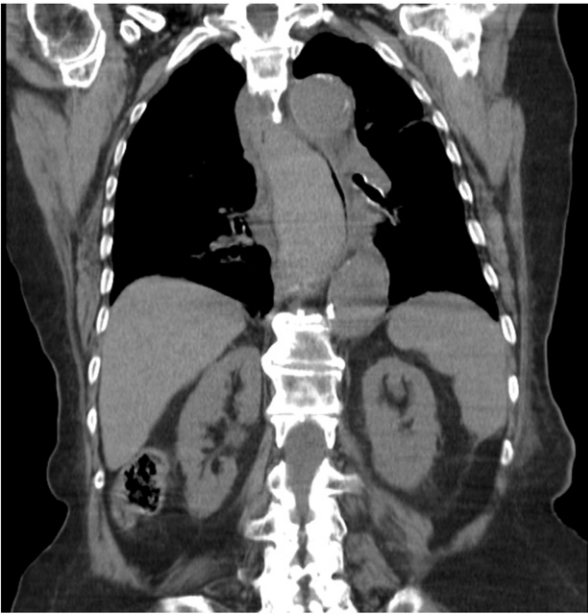
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<sup>☆</sup> Conflicts of interest: All authors declare no conflicts of interest.



**Figure.** Extensive esophageal intramural hematoma on CT scan.

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<http://dx.doi.org/10.1016/j.ajem.2014.08.069>

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