CASE REPORT

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# Massive bleeding due to dissecting esophageal hematoma: A diagnostic dilemma

## Dissekan özofagus hematomuna bağlı masif kanama: Tanıda ikilem

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*The esophagus may be the origin of acute chest pain that is clinically indistinguishable from that caused due to other cardiothoracic emergencies. Dissecting esophageal hematoma is an extremely rare condition generally presenting with severe acute chest pain, and it might also cause vomiting, dysphagia, odynophagia, and hematemesis. Endoscopy is safe and can be used to confirm the diagnosis when a hematoma within the esophageal wall or later appearances of a longitudinal dissection are observed. Dissecting esophageal hematoma has an excellent prognosis, and it is usually treated conservatively after excluding esophageal perforation. We report a case of a 44-year-old male patient with Behçet's disease who was taking colchicine, coumadin, and enoxaparin, and we initially suspected that this patient had pulmonary embolism or pulmonary artery aneurysm, but later, we found that he had dissecting esophageal hematoma. Furthermore, we observed that the laceration did not heal completely even 6 weeks after the conservative treatment.*

***Key words:*** *Dissecting esophageal hematoma, masssive bleeding, prognosis*

*Özofagus klinik olarak diğer kardiyotorasik acillerle karışabilen akut göğüs ağrısı nedenlerinden olabilir. Dissekan özofagus hematomu oldukça nadir görülen bir durum olup, genellikle ciddi göğüs ağrısı ile karşımıza çıkabilir. Kusma, disfaji, odinofaji ve hematemezle de karşımıza çıkabilir. Endoskopi güvenli bir işlem olup özofagus duvarında hematom veya daha sonraki longitudinal disseksiyonu göstererek tanıyı kesinleştirir. Disekan özofagus hematomu mükemmel bir prognoza sahiptir ve genellikle özofagus perforasyonu dışlanırsa konservatif olarak tedavi edilir. Burada 44 yaşında, Behçet Hastalığı tanısı ile izlenen ve kolşisin, kumadin ve enoksaparin tedavisi alan ve öncelikle pulmoner emboli veya pulmoner arter anevrizmasından şüphelenilen ancak disekan özofagus hematomu tanısı koyduğumuz bir olguyu sunacağız. Ek olarak, konservatif tedavi sonrası altıncı haftada laserasyonun tamamen iyileşmediğini gösterdik.*

***Anahtar kelimeler:*** *Dissekan özofagus hematomu, masif kanama, prognoz*

## INTRODUCTION

Dissecting esophageal hematoma (DEH) is a rare condition in which an intramural hemorrhage leads to a different degree of submucosal dissection of the esophageal wall (1,2). The etiologic factors of this entity are still not completely understood (2). Intraesophageal blood pressure, trauma, coagulopathy, use of anticoagulant drugs, and iatrogenic procedures have been accepted as risk factors. However, spontaneous occurrence without any clear reason can also be noticed (2-4). The most common clinical feature is acute retrosternal or epigastric pain that can be accompanied by dysphagia, odynophagia, or hematemesis (5). Possible differential diagnoses that must be considered include Mallory–Weiss syndrome, Boerhaave syndrome, ruptured aortic aneurysm, aortic dissection, acute myocardial infarction, and pulmonary pathology.

Computed tomography (CT) is beneficial in diagnosing the disease and evaluating the complications such as infections or additional pathologies related to the adjacent airway (2). Endoscopic examinations are beneficial in further diagnosis compared with imaging modalities despite few disadvantages (2). Although DEH has a frightening endoscopic appearance, it has a good prognosis, especially when compared with the diseases that can be considered in the differential diagnosis (2,4).

## Case Report

A 44-year-old male patient was admitted with acute chest pain, dyspnea, dysphagia, hematemesis, and melena. He had been suffering from Behçet's disease for the past 7 years and venous thrombosis in his lower extremity for the past 4 years. He was taking colchicine (2x0.5 mg/day), coumadin (5 mg/day), methylprednisolone (4 mg/day), and enoxaparin (1x0.4 ml). The patient's complaints started 2 days ago and increased gradually. Physical examination did not reveal any abnormality apart from melena.

Laboratory evaluation showed the following results: hemoglobin 13,7 g/dl, white blood cell count 16.600/mm$^3$, thrombocyte count 215.000/mm$^3$, prothrombin time (PT) 66,9 s [international normalized ratio (INR): 8,3], blood urea nitrogen (BUN) 98 mg/dl (0-50 mg), aspartate aminotransferase (AST) 39 U/L (N: 0-37 U/L), and alanine aminotransferase (ALT) 134 U/L (N: 0-37 U/L). The other biochemical values and blood gas analysis were normal. Electrocardiogram (ECG) and echocardiography showed normal findings.

Thorax CT was performed to exclude pulmonary embolism, which revealed an increased calibration of mid-distal esophagus and a suspected mass image with posterior wall contrast

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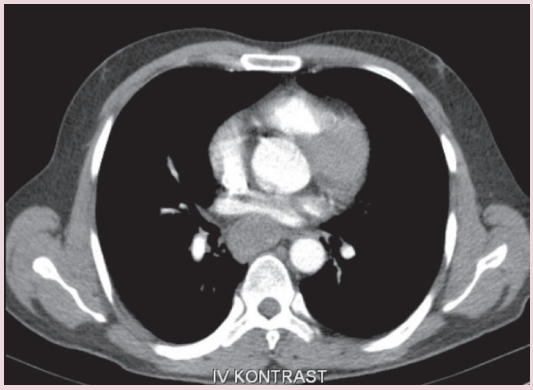


**Figure 1.** Thorax CT showing the increased attenuation of an esophageal mass and intramural hematoma of the esophagus.

enhancement (Figure 1). Upper endoscopy revealed the presence of a vascular lesion and dissection measuring 10 cm in length located at 26-36 cm from the incisors in the esophagus. The patient was diagnosed as having DEH (Figure 2A and 2B).

After stopping oral intake, IV omeprazole 2x40 mg was started. Coumadin, which he was taking for deep venous thrombosis caused due to the complication of Behçet's disease, was stopped. In the follow-up, six units of red blood cell suspension for treating anemia (hemoglobin: 7,2 g/dl) and three units of fresh frozen plasma were infused for normalization of INR, and the patient's complaints gradually decreased. One week after the first endoscopy, a control endoscopy was performed, and the laceration was noticed, but the hematoma disappeared (Figure 2C). Oral intake of lansoprazole 2x30 mg/day was started. Azathioprine 100 mg/day as an immunosuppressive treatment was started for treating the thrombosis caused due to Behçet's disease.

After 2 weeks, all the symptoms, except the pyrosis, were resolved. Six weeks after the first endoscopy, a re-endoscopy was performed, which showed the resolution of laceration (Figure 2D).

## DISCUSSION

Esophageal perforations, Mallory-Weiss tears, and esophageal hematoma are the primary traumatic causes of DEH (6). DEH is a rare condition that can also be termed as intramural esophageal perforation and intramural dissection of the esophagus (7). The spectrum of esophageal injuries in this condition can range from Mallory-Weiss syndrome to Boerhaave syndrome (2,7,8). Mallory-Weiss tear, intramural hematoma of the esophagus (IHE), and Boerhaave syndrome share clinical presentations and similar etiologies (8). IHE has a lower incidence than that of other conditions and has been reported more frequently in middle-aged or elderly females (2,8). Elderly patients with intrinsic coagulopathies or those administered anticoagulants or antiplatelet medications are at an increased risk for IHE (5,8). In our patient, the etiology of DEH was the use of anticoagulants. The most common clinical features of DEH include chest pain, hematemesis, and dysphagia with odynophagia. Retrosternal pain, dysphagia or odynophagia, and hematemesis constitute the clinical trial of IHE, with an incidence of approximately 35% (8). At least 99% of the patients might experience one of these symptoms (4). The other symptoms include back pain, epigastric pain, nausea, and vomiting. Hematemesis frequently occurs at the onset of IHE but disappears spontaneously (8). However, only 10% of patients require blood transfusion (2). Massive bleeding has also been reported in the literature (9). Our patient manifested not only the triad of retrosternal pain, dysphagia or odynophagia, and hematemesis but also massive bleeding that was caused due to DEH. Therefore, we believe that this case is very interesting.

IHE is an extremely rare cause of chest pain, and several clinicians are still unaware of this condition despite the increasing number of reports (5). Clinical findings of IHE are nonspecific. However, these findings may imitate cardiovascular,

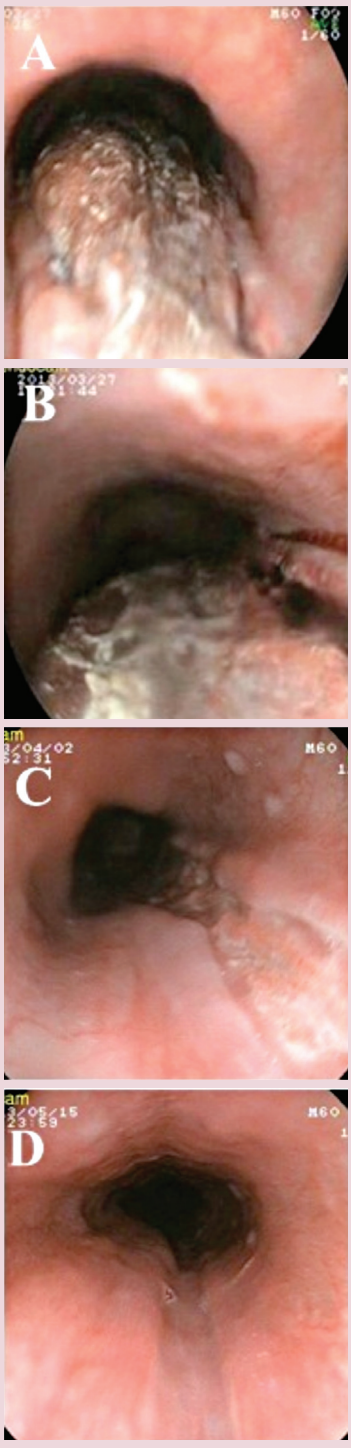


**Figure 2. Endoscopic appearance of dissecting esophageal hematoma.**
**2A.** The paler mucosa can be observed over the surface, showing the submucosal origin of the hematoma.
**2B.** The laceration was observed in the first endoscopic examination.
**2C.** One week after the conservative treatment.
**2D.** Six weeks after the conservative treatment.

pulmonary, or other esophageal diseases. Therefore, there are reports of IHE that have been incorrectly diagnosed as acute coronary syndrome, pulmonary embolism, or aortic dissection (8). Thus, the important differential diagnoses in the acute onset include acute myocardial infarction, pulmonary embolism, aortic dissection, and sometimes, Boerhaave syndrome. Unlike DEH, these diseases are life-threatening and have higher mortality when they are misdiagnosed, subjected to delayed treatment, or left untreated. In our patient, we first performed thorax CT because of the risk of hemorrhage from aortic aneurysm and the high probability of pulmonary embolism. However, embolism was not detected in our patient. Thorax CT showed a soft tissue mass at middle and lower esophagus. Endoscopy revealed submucosal hematoma and longitudinal dissection. Despite its frightening endoscopic appearance, DEH, a benign disease, has an excellent prognosis and responds well to supportive treatment, withdrawal of antiplatelets or anticoagulants, correction of coagulopathy, and blood transfusion (2,4,7). Complete recovery of the mucosal tear and the normal wall tone and peristalsis may take 1-3 weeks (2). The management of DEH is conservative, and the outcome is excellent with almost complete recovery (10). Our patient responded well to the conservative treatment, and 1 week after the treatment, the hematoma disappeared completely, although the mucosal laceration did not heal completely even after 6 weeks.

In conclusion, DEH should be suspected in every patient taking anticoagulant treatment and presenting with chest pain, dysphagia, odynophagia, hematemesis, and melena. Despite its benign course, DEH may present with massive upper gastrointestinal bleeding. Endoscopic evaluation is safe and effective. Complete recovery of laceration may take a long time.

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