




Intramural submucosal hematoma of esophagus due to anticoagulant treatment*Antikoagulan tedaviye sekonder gelişen intramural submukozal özofagus hematomu*Semra Demirli Atıcı¹ 
Göksever Akpınar¹ Mehmet Üstün¹ 
Mustafa Emiroğlu¹ Özge Duman Atilla² ¹ Sağlık Bilimleri University, Tepecik Training and Research Hospital, Department of General Surgery, Izmir, Turkey² Sağlık Bilimleri University, Tepecik Training and Research Hospital, Department of Emergency Medicine, Izmir, Turkey**Abstract**

Esophageal intramural submucosal hematoma is a rare and uncommon condition which occurs due to anticoagulant or antiplatelet treatment in the elderly population, or secondary to trauma.

A 63-year-old female was presented to emergency with sudden onset hematemesis, back and chest pain left shoulder pain and sweating. She has a history of non-regulated hypertension and new diagnosed atrial fibrillation with using warfarin for a week. Except for high blood pressure, her physical examination was normal with long International Normalized Ratio (INR). For confirming cardiac pathologies (abdominal aortic aneurysm or dissection) echocardiography and intravenous contrast computerized tomography of chest and abdomen was performed. Computed Tomography (CT) findings were consistent with an intramural esophageal hematoma. She hospitalized intensive care unit and was controlled regularly with blood tests and vital signs. After decreasing INR, gastroscopy was performed, and findings were consistent with an intramural esophageal hematoma. By hemodynamic stabilization oral intake was starting with fluid. Control esophagogastroskopi was performed to exclude any malignancy underlying hematoma and also showed regression of hematoma. She was recovered with conservative treatment. On the day of the sixteenth, she was discharged. Spontaneously submucosal esophageal hematoma due to anticoagulant or antiplatelet treatment in the elderly patient, is a rarely seen condition. By conservative treatment, most of the cases can be recovered.

Keywords: Esophagus, esophageal submucosal hematoma, anticoagulant treatment.

Öz

Intramural submukozal özofagus hematomu, sıklıkla yaşlı popülasyonda, antikoagulan veya antiplatelet tedavisine veya travmaya sekonder gelişen, nadir gözlenen bir durumdur.

63 yaşında kadın hasta ani başlangıçlı hematemez, sırt ve göğüs ağrısı, omuz ağrısı ve terleme ile acil servise başvurdu. Regüle olmayan hipertansiyon ve yeni tanı atriyal fibrilasyon nedeniyle yaklaşık bir haftadır warfarin kullanım öyküsü mevcuttu. Yapılan fizik muayenesinde yüksek kan basıncı dışında özellik olmayıp, yapılan laboratuvar testlerinde Uluslararası Normalize Oran (INR) normal değerinden yüksek saptandı. Olası kardiyak patolojileri (abdominal aort anevrizması veya diseksiyonu) dışlamak için ekokardiyografi ve intravenöz kontrastlı toraks ve abdomen bilgisayarlı tomografisi (BT) çekildi. BT bulguları intramural özofagus hematomu ile uyumlu saptanan hasta yoğun bakım ünitesine yatırıldı. Vital takip ve düzenli aralıklarla kan testleri kontrol edildi. INR değeri gerileyen hastaya gastroskopi yapıldı. Bulgular intramural özofagus hematomunu desteklemekteydi. Hemodinamik stabilizasyon sonrası oral sıvı gıda alımına başlandı. Takiplerinde altta yatan maligniteyi dışlamak ve hematoma gerilemesini göstermek için kontrol özofagogastroskopi yapıldı. Olağan görünümde olduğu saptandı. Hasta konservatif tedavi ile izlem sonunda, on altıncı günde, sorunsuz bir şekilde taburcu edildi.

Yaşlı hastada antikoagulan veya antiplatelet tedavisine bağlı spontan submukozal özofagus hematomu nadir görülen bir durumdur. Konservatif tedavi ile vakaların çoğu iyileşebilir.

Anahtar Sözcükler: Özofagus, özofageal submukozal hematoma, antikoagulan tedavi.

Corresponding author: Semra Demirli Atıcı
Sağlık Bilimleri University, Tepecik Training and Research
Hospital, Department of General Surgery, Izmir, Turkey
E-mail: smrdemirli@hotmail.com

Received: 26.10.2018 Accepted: 14.11.2018

Introduction

Esophageal intramural submucosal hematoma is a rare and uncommon condition which presents symptoms of the acute coronary syndrome, dysphagia, odynophagia or abdominal aortic aneurysm (1). It is seen rarely and can be caused spontaneously; especially patient who is under antiplatelet or anticoagulant treatment or secondary to trauma (endotracheal intubation, transesophageal echocardiogram, esophageal biopsy, band ligation for esophageal varices) emesis, foreign bodies, eosinophilic esophagitis, iatrogenic damages by the endoscopic procedures (gastroscopy or endoscopic retrograde cholangiopancreatography) (2). We aim to report a 63-year-old female patient with submucosal esophageal hematoma due to using anticoagulant treatment (warfarin) for arrhythmia.

Case Report

A 63-year-old female was presented to emergency with sudden onset hematemesis, back and chest pain left shoulder pain and sweating. There is no history of cirrhosis or liver failure. She had a history of non-regulated hypertension and newly diagnosed arrhythmia (atrial fibrillation) with using warfarin for a week. Her physical examination was unremarkable. Her blood pressure was 205/105 mmHg, however other vital signs were within normal range (body temperature: 36.3°C, heart rate: 64/min arrhythmic, SpO₂: 93%, respiratory rate: 23/min) Laboratory test were normal except coagulation tests INR and Activated Partial

Thromboplastin Time (APTT) and leukocytosis which was 11100. High levels of INR: 3.91 and APTT: 48.9 seconds were remarkable. Liver function tests, Electrocardiography (ECG) and blood test for serum cardiac enzymes (Troponin <0.017) were reported normal and also repeated troponin level was normal for cardiac pathologies. Nitrolingual spray and intravenous nitroglycerin were given for high blood pressure at the emergency service. For confirming cardiac pathologies (abdominal aortic aneurysm or dissection) echocardiography and intravenous contrast computerized tomography (CT) of chest and abdomen was performed. Cardiac echocardiography was reported left ventricle hypertrophy, ejection fraction was 60%, and there were no signs of dissection or pulmonary embolism. CT findings were normal to accept soft-tissue density extending from the carina to the

gastroesophageal junction, suggestive of intramural esophageal hematoma which causes luminal narrowing (Figure-1). She was interned to the intensive care unit and connected to the monitor, and started high dose proton pump inhibitor, vitamin K, intravenous hydration with stopped oral intake and also replaced two units of fresh frozen plasma to increase the INR level. With normalized INR esophagogastrosopy was performed. According to esophagogastrosopy; from 3 cm distal of epiglottis to the line of Z, a submucosal intramural hematoma which causes luminal narrowing of a long segment of the esophagus was seen. In stomach, there were a few hematinized blood and also a few small coagula. Fundus, corpus, cardia was normal. Antrum was hyperemic. Bulbus and second segment of the duodenum was normal.

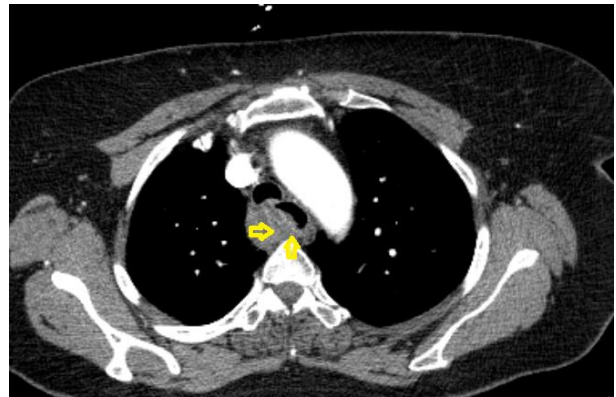


Figure-1. CT image shows soft-tissue density extending from the carina level to the gastroesophageal junction, suggestive of intramural esophageal hematoma which causes luminal narrowing.

The patient was controlled regularly in the intensive care unit with blood tests and vital signs.

After hemodynamic stabilization, oral intake was started with fluids. Control esophagogastrosopy was performed to exclude any underlying malignancy and also to show the regression of the hematoma. After showing the regression of hematoma anticoagulant therapy was started again for arrhythmia. On the sixteenth day, with conservative treatment the esophageal hematoma was fully regressed, and it is confirmed by gastroscopy. Written informed consent was obtained from the patient for publication of this case report and any accompanying images.

Discussion

Intramural submucosal esophageal hematoma is a rare uncommon condition, which usually presents sudden chest pain, back pain or retrosternal pain; mimicking cardiovascular disease symptoms. It can be spontaneously or secondary to trauma or other interventional processes (gastroscopy, endoscopic retrograde cholangiopancreatography, endovascular surgery due to a cerebral aneurysm) (2). In the literature, most reported patients with esophageal submucosal hematoma was elder, female and uses antiplatelet drugs or who had abnormal coagulation like immune thrombocytopenic purpura (2). Therefore, the bleeding tendency is a risk factor for esophageal submucosal hematoma. Causes which increase esophageal pressure and abdominal pressure like as vomiting, coughing, sneezing also are risk factors for submucosal dissection (2, 3).

Also non-regulated hypertension, as our case, may be a risk factor of this disease (3). Diagnosis for submucosal hematoma and showing other pathologies, especially a cardiac disease or an aorta aneurysm or dissection, CT can be first choice (3, 4). CT is quick and non-invasive comparing with endoscopy. A CT scan shows extravasation of oral contrast, luminal obliteration and luminal compression of esophagus or wall thickness. Magnetic resonance imaging (MRI) and endoscopic ultrasound are also useful for

diagnosing hematomas (5). Endoscopy is important for diagnosis and treatment but has some disadvantages to CT. Due to mucosal damage and insufflation during endoscopy the esophagus can be perforated quickly so endoscopy must be done carefully. In our case because of the high levels of coagulation tests and excluding for other causes chest and abdomen CT was chosen. CT shows there was no dissection of the aorta or abdominal aortic aneurysm but shows luminal compression with a large hematoma which obliterates the lumen of the esophagus. After stabilization of coagulation tests, endoscopy was performed. It shows submucosal intramural hematoma which causes luminal narrowing of the esophagus from the carina level to the gastroesophageal junction. Submucosal hematomas need hospitalization, with stopping oral intake, high dose proton pump inhibitors and regular examination by checking laboratory tests and conservative treatment as possible. Reported most cases are recovered with medical and conservative treatment in 3-4 weeks (3, 5).

In conclusion, especially elder patients who have unregulated hypertension and anticoagulant or antiplatelet treatment have the risk of spontaneously submucosal esophageal hematoma due to anticoagulant treatment. By conservative treatment, most of the cases can be recovered.

References

1. Nurith Hiller, Spontaneous Intramural Hematoma of the Esophagus, *The American Journal of Gastroenterology*, Vol. 94, No. 8, 1999.
2. Sachiko Ito, Shihoko Iwata, Izumi Kondo, Motoyo Iwade, Makoto Ozaki, Tatsuya Ishikawa, et al., Esophageal submucosal hematoma developed after endovascular surgery for unruptured cerebral aneurysm under general anesthesia: a case report, *JA Clinical Reports* (2017) 3: 54.
3. George Mathew; Steve S. Bhimji., Esophageal Hematoma, <https://www.ncbi.nlm.nih.gov/books/NBK459228/>
4. N Barbetakis, Ch Asteriou, Ath Kleontas, N Salveridis, V Lagopoulos, and D Paliouras, Spontaneous intramural esophageal hematoma, *Hippokratia*. 2011 Jul-Sep; 15 (3): 280.
5. Abbey P1, Sharma R, Garg PK., Spontaneous intramural haematoma of the oesophagus: complete resolution on follow-up magnetic resonance imaging., *Singapore Med J*. 2009 Sep; 50 (9): e 318-20.