

# Ileus Secondary to Jejunal Intramural Hematoma: Case Report

## İleusa Neden Olan Jejunal İntamural Hematoma

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**ABSTRACT** Warfarin is a widely used pharmacologic agent for anticoagulation in many thromboembolic diseases. Gastrointestinal system bleeding is a well-known complication of this treatment. On the other hand, intramural hematoma is another very rare complication of warfarin. Here we report an interesting case presented with ileus secondary to jejunal intramural hematoma related to warfarin treatment. Radiologic imaging methods may help for diagnosis. However, new techniques such as double balloon enteroscopy may help for an early and absolute diagnosis. Small bowel intramural hematoma was diagnosed by double balloon enteroscopy in our case. She was discharged within fifteen days with symptomatic treatment.

**Key Words:** Warfarin; ileus

**ÖZET** Warfarin, çeşitli tromboembolik hastalıkların tedavisinde yaygın olarak kullanılan bir farmakolojik ajandır. Bu tedavinin bilinen en iyi komplikasyonu gastrointestinal sistem kanamalarıdır. Öte yandan, intramural hematoma çok nadir görülen diğer bir komplikasyondur. Bu yazıda, warfarin kullanımına bağlı jejunal intramural hematoma sekonder gelişen, nadir bir ileus olgusu sunulmuştur. Radyolojik görüntüleme yöntemleri tanıda yardımcı olmaktadır. Ancak, erken ve kesin tanı çift balon enteroskopi gibi yeni gelişen teknikler ile mümkündür. Bizim olgumuzda da ince bağırsaktaki intramural hematoma tanısı çift balon enteroskopi ile konulmuştur. Hastamız semptomatik tedavi ile 15 gün içinde hastaneden çıkarılmıştır.

**Anahtar Kelimeler:** Warfarin; ileus

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Warfarin is a widely used pharmacologic agent for anticoagulation in many thromboembolic diseases. Epistaxis, gingival bleeding, haematuria and gastrointestinal system bleeding related to warfarin treatment are well known hemorrhagic complications. On the other hand, intramural hematoma is not common and ileus caused by intestinal hematoma is very rare.<sup>1-3</sup> Radiologic imaging methods may help for diagnosis and all cases were diagnosed by barium enema examination and computerized tomography (CT) in the literature. Small bowel imaging methods such as double balloon enteroscopy (DBE) can help for absolute diagnosis. Here we report an interesting case presented with ileus secondary to jejunal intramural hematoma associated with warfarin treatment diagnosed by DBE.

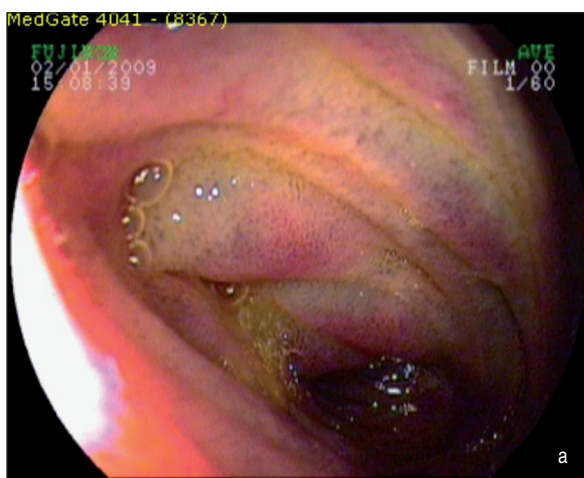
## CASE REPORT

A 59-year-old female was referred to our emergency department for abdominal pain, nausea, vomiting and abdominal distention. She had a history of mitral valve replacement 7 years ago, since then she was using warfarin. Physical examination revealed a mildly tender and distended abdomen with reduced bowel sounds, grade 2/6 systolic murmur at the mitral area. Elevated INR (4.5) and slightly decreased hemoglobin levels of 10 mg/dL were detected in laboratory results. Upper gastrointestinal endoscopy and colonoscopy were normal. Abdominal ultrasonography showed cholecystolithiasis, dilated bowel segments and perisplenic fluid. Then, abdominal CT was performed and, dilated jejunal segments with diffuse wall thickening, omental edema, perisplenic and perihepatic fluid collection was observed. After transfusion of 2 units of fresh frozen plasma, DBE was performed for the diagnosis of ileus and it has revealed a cyanotic mucosa at initial 10 cm of jejunum and hyperemic, congested segments at mid-jejunum which hardly permits passage of the enteroscope (Figure 1 a-b). The mucosa was normal in the distal part of the congested segment. Warfarin was discontinued and the patient was followed-up with low molecular weight heparin and symptomatic treatment. On 15<sup>th</sup> day of follow up her symptoms relieved and she was discharged from hospital.

## DISCUSSION

Warfarin is a widely used pharmacologic agent for anticoagulation. Gastrointestinal system bleeding is the most common complication of warfarin treatment. Small bowel hematoma is a very rare complication of warfarin treatment. There are a few reports in the literatures.<sup>1</sup> The primary symptom of these patients is usually abdominal pain, different associated symptoms such as nausea, and vomiting can be seen, but gastrointestinal bleeding is not common. Rarely complete intestinal obstruction and bowel ischemia may develop and patient may present with acute abdomen.<sup>2</sup> Most of the cases were diagnosed by non-contrast abdominal CT which showed thickened bowel walls and dilated segments.<sup>3</sup> Warfarin induced hemorrhagic infarctions of the small bowel are extremely uncommon. Few cases were reported in the literature.<sup>4,5</sup> Our patient presented with acute abdomen and DBE was performed for certain diagnosis after radiologic imaging methods. The pathogenesis of this medical situation is not clear yet. We also showed that DBE can be performed without any complications in spite of high INR level.

As a conclusion, we report a rare complication of warfarin diagnosed by double balloon enteroscopy.



**FIGURE 1:** Cyanotic mucosa of jejunum, hyperemic and congested segments at mid-jejunum which hardly permits passage of the enteroscope.

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