

A Case of Jejunal Intramural Hematoma Due to Warfarin Overdose

Emin BODAKCI

Gaziantep City Hospital, Department of Gastroenterology, Gaziantep Turkey

Orcid: 0000-0002-3927-3810

Abstract

Warfarin is an oral vitamin K antagonist anticoagulant agent, frequently used in the primary and secondary prophylaxis of thromboembolic events. Overdosing may occur due to its narrow therapeutic range and frequent drug interactions. This toxicity can be prevented with close INR monitoring. Gastrointestinal system bleeding, brain hemorrhage, hematuria and various organ bleeding may occur due to overdose. Jejunal intramural hematoma is a rare, but life-threatening condition in warfarin use if it is not noticed and not considered in the differential diagnosis. In this article, we present a case of jejunal intramural hematoma due to warfarin overdose, which was successfully treated with conservative treatment.

Introduction

Oral anticoagulants it is widely used to reduce the risk of thromboembolism in coronary artery disease, pulmonary, vascular and cerebral diseases. Warfarin, which shows its effect by inhibiting vitamin K dependent coagulation factors in the liver, is a frequently used oral anticoagulant. However, due to its narrow therapeutic index and high drug interactions, it has side effect especially bleeding (1). Intramural small bowel hematoma is a rare complication seen with a rate of 1:2500 in patients using oral anticoagulants(2). Small bowel intramural hematoma should be considered in the differential diagnosis in patients who use warfarin for any reason and develop abdominal pain.

Case Report

A 66-years old male patient was admitted to the emergency department with nausea, vomiting and abdominal pain for two days. In the patient's medical history, it was seen that warfarin 5 mg was started a week ago due to deep vein thrombosis. On physical examination of the patient, there was pain and tenderness in all quadrants of the abdomen. There was no defense or rebounding. The patient had tachycardia(110 beats/minute) and blood pressure was 90-60 mm Hg. Blood investigations revealed anemia with a hemoglobin(Hgb) of 7.2 g/dl along with mild leukocytosis. Creatine value is 2.3 mg/dl, C-reactive protein value is 138

mg/dl. International normalization ratio(INR) 10.8 .The patient's hemoglobin value a week ago was 13 gr/dl. No findings in favor of hemolysis or gastrointestinal bleeding were detected in the patient. In the patient's computed tomography(CT), a wall thickness of up to 3 centimeters(cm) in a segment of approximately 30 cm in the jejunal loops and free fluid in the pelvis were detected(figure 1-2). Jejunal intramural hematoma was primarily considered in patient. Fresh frozen plasma(FFP), vitamin K, intravenous hydration and erythrocyte replacement were administered to the patient, for whom no urgent surgical intervention was planned. During the follow-up, the patient was given a total of 6 units of erythrocyte transfusion and 5 FFP. On the 3rd day, the hgb value was 11.5 gr/dl, the INR was 1.2 and the creatine levels was 0.98mg/dl. The patient no had abdominal pain during the follow-up. It was observed that the wall thickened decreased in the control CT scans. The patient was discharged with recovery.

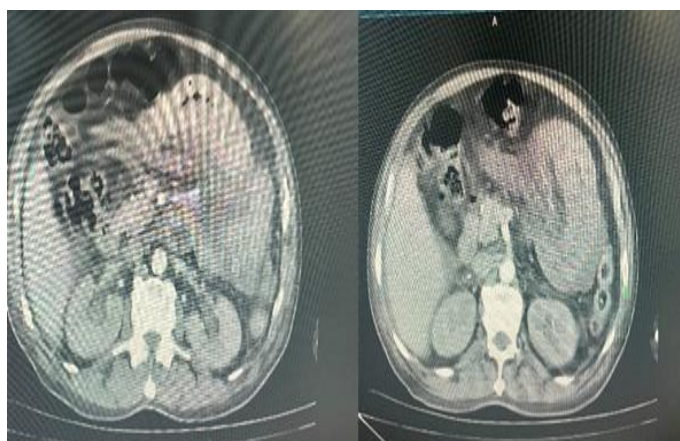


Figure-1/2: Wall thickenes of jejunal loops

Discussion

Warfarin is a vitamin K antagonist frequently used in thromboembolic conditions such as atrial fibrillation, prosthetic heart valve placement, and deep vein thrombosis. In cases especially where proper monitoring of coagulation profile, that is, prothrombin time and (INR) are not done properly it commonly causes bleeding tendencies that are spontaneous and atraumatic in nature such as ecchymosis, subconjunctival hemorrhage, and gingival bleeding(3-4).

Intestinal transmural hematoma most commonly occurs in the jejunum. Colon is rarely affected. Most of these patients are asymptomatic, but when symptomatic, they have been seen to present with abdominal pain and vomiting, and some cases had history of hematemesis and melena. The most common cause is warfarine use, and in addition to anticoagulant use. It can also occur in diseases such as hemophilia, idiopathic thrombocytopenic purpura, leukemia and lymphoma(5-6).

Ultrasonography and CT are generally used for diagnosis in these patients. Ultrasonography may show an increase in the thickness of the small intestine that does not respond to compression. But it is not enough for a definitive diagnosis. Thickening of the intestine wall, narrowing of the lumen and intestinal obstruction seen on CT are very characteristic. If the hematoma is not widespread, has not caused complete obstruction due to pressure, and there no signs of ischemia these patients can generally be followed up with conservative treatment. Conservative management has been found to be the most effective in the few cases diagnosed all over the world. Cessation of the anticoagulant, vitamin K administration, and FFP are the initial steps. Resuscitation with intravenous fluids and correction of anemia with

packed cell blood is required. Keeping the patient nil per oral gives rest to the bowel., enhancing the resolution of hematoma in the intestine. An expectant management both avoids the surgical stress on the patient and reduces the excessive bleeding that may occur on performing surgery. Surgical exploration that was commonly used before has now been reserved for cases where there was no response to conservative management or there was deterioration of patient, or obstruction associated with perforation(7).

Novel anticoagulants like dabigatran and rivaroxaban have the advantages compared with warfarin as they have minimal interactions with other drugs, rapid onset and offset of action, have predictable pharmacokinetics and dynamics and usually do not require laboratory monitoring(8).

References

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