

Case Report,

A rare cause of hemorrhagic shock: Antrum biopsy under rivaroxaban

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Introduction:

Direct oral anticoagulants (DOACs; apixaban, dabigatran, edoxaban, and rivaroxaban,) are used in the management of patients with atrial fibrillation, ischemic heart disease, venous thromboembolism, and valvular heart disease. These drugs also increase the risk of gastrointestinal (GI) bleeding from luminal sources such as ulcers or diverticula and after endoscopic procedures.¹⁻² Rivaroxaban is a direct competitive inhibitor of factor Xa and limits thrombin generation in a dose dependent manner. Absorption of this drug is rapid and it presents a half-life of 7 to 11 hours. Diagnostic endoscopies, including mucosal biopsy sampling, harbor a minimal risk of haemorrhage, and no severe haemorrhage has been reported in studies involving thousands of patients in total.³⁻⁶ Although no serious bleeding was reported in the endoscopic mucosal biopsy performed under rivaroxaban in the literature. in our case, hemorrhagic shock developed due to leakage in the biopsy area as a result of antrum biopsy performed under rivaroxaban.

Case Report:

A 60-year-old male patient was using rivaroxaban 20 mg once a day due to non-valvular atrial fibrillation. Ferritin 14ng/ml (30-400), transferrin saturation 7% (13-45%), hemoglobin 12 gr/dl (13.5-16), creatine 0.6 mg/dL (0.7-1.2) It is recommended to use the gastrointestinal system with process iron deficiency anemia with no additional problems. The rivaroxaban was interrupted on the morning of the endoskopik procedure. The ileocolonoscopy examination was found to be normal. Due to edema and erythema in the antrum in esophagogastroduodenoscopy, biopsy was taken from the antrum with biopsy forceps from the patient. There was no bleeding or any complication during the procedure. Dark black stools occurred 18 hours after the procedure, but the patient did not apply to the hospital. Twenty-four hours after the procedure, the patient was admitted to the hospital because of dizziness, orthostatic hypotension, and weakness. In the first evaluation, it was observed that consciousness was confused, blood pressure was 80/45 mmHg, and heart rate was 140 beats/minute. In the examinations of the patient, hemoglobin 5 gr/dl,

hematocrit 17%, blood urea nitrogen 65mg/dL.(14-45), creatine 1.5 mg/dL(0.7-1.2). With the preliminary diagnosis of hemorrhagic shock, two intravenous lines were opened, and 0.09% NaCl infusion was started. After 80 mg of pantoprazole push was administered, 8 mg/hour infusion was continued. The patient received 3 units of erythrocyte transfusion in a 5-hour period. After stabilizing the general condition of the patient (blood pressure 110-78 mmHg, heart rate 90 beats/minute), the patient was taken to the endoscopy unit. A large amount of fresh blood in the stomach was observed in the endoscopy. It was observed that there was active bleeding in the form of leakage from the antrum biopsy taken 36 hours ago (image-1). After sclerotherapy with adrenaline was applied to the bleeding area, hemostasis was controlled by throwing 3 hemoclips (Image-2). Since the hemoglobin value of the patient after the procedure was 8gr/dL, 2 more units of red blood cells were transfused to the patient. The patient, who received a total of 5 units of erythrocyte transfusion, was discharged 3 days later with full recovery.



Image 1: Active bleeding at the biopsy site



Image-2: clipping the bleeding site

Discussion:

It is stated in the guidelines that endoscopic procedures with low bleeding risk can be safely performed under DOACs. However, although it has been stated that it can be done safely, it should be kept in mind that serious bleeding may occur, albeit at a low rate. Our case, who had a mucosal biopsy from the antrum under rivaroxaban, presented with hemorrhagic shock and active bleeding from the biopsy site 36 hours later. We think that in low-risk procedures performed under rivaroxaban, the patient should be warned about bleeding, in case of bleeding symptoms, he should apply to the hospital.

References:

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