

Asymptomatic retroperitoneal hemorrhage in a hemodialysis patient: a case report

Hemodiyaliz hastasında asemptomatik retroperitoneal kanama: olgu sunumu

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ABSTRACT

Hemostasis is deteriorated in patients with end-stage chronic kidney disease and dialysis. Therefore, these patients tend to bleed. Spontaneous retroperitoneal hemorrhage almost always occurs with obvious clinical symptoms and findings. Here we aimed to present our patient with SRH whose course was in an atypical fashion.

Keywords: Hemodialysis patient, retroperitoneal hemorrhage, case

ÖZ

Son dönem kronik böbrek hastaları ve diyaliz hastalarında hemostaz bozulmuştur. Bundan dolayı bu hastalar kanamaya meyillidir. Spontan retroperitoneal kanamalar genellikle gürültülü ciddi klinik semptom ve bulgular ile tanı alır. İntermittan hemodiyaliz tedavisi sırasında ortaya çıkan asemptomatik retroperitoneal kanamalı olgumuzu atipik seyri nedeniyle sunmayı uygun gördük.

Anahtar Kelimeler: Hemodiyaliz hastaları, retroperitoneal kanama, olgu

INTRODUCTION

Retroperitoneal hemorrhage almost always reveals serious clinical status owing to loose of a large volume of blood into the retroperitoneum (1). Here we present a hemodialysis patient who had a serious anemia in consequence of retroperitoneal hemorrhage despite lack of symptoms.

CASE

Forty-seven year-old female counseled to nephrology outpatient polyclinics because of serious anemia. The patient had a medical history of diabetic nephropathy, atherosclerotic cardiovascular disease, hypertension and was receiving a hemodialysis program of 3 sessions per week with standard heparin for 6 years. The patient had received erythrocyte replacement treatment two times because of low levels of hemoglobin, however, gradual fall in hemoglobin levels remained (Figure 1). Patient's physical examination revealed paleness, a mild tachycardia (about 105-110 beat per minute), a functioning left brachiocephalic A-V fistula

and no bruise or rectal bleeding findings.

Some of recent laboratory results are noted as; white blood cells: 4600/mm³, platelet: 266000/mm³, glucose: 96 mg/dL, urea: 148 mg/dL, creatinine: 4,8 mg/dL, ferritin: 1327 ng/mL, Vitamin B12: 680 pg/mL, folic acid: 7,8 ng/mL, INR: 1,12, PT: 13 sec, aPTT: 29 sec. and bleeding time: 6 minute. Hemoglobine change is depicted as;

Ultrasound imaging defined a heterogenous smooth tissue mass at the paracolic level of the ascendant colon. Computed tomography imaging described a right-iliac fossa-sided an 8x6x4 cm retroperitoneal hematoma (Figure 2). Because of the high risk of developing ischemic cardiac event two unit ES transfusion administered. On the other hand, endoscopic screening was performed for gastrointestinal bleeding, and malignancy and found grade-I internal hemorrhoid, otherwise normal.

A heparin-free hemodialysis program administered. In the following days hemoglobin decrement not occurred. Control imaging revealed resolution of hematoma. We aimed to

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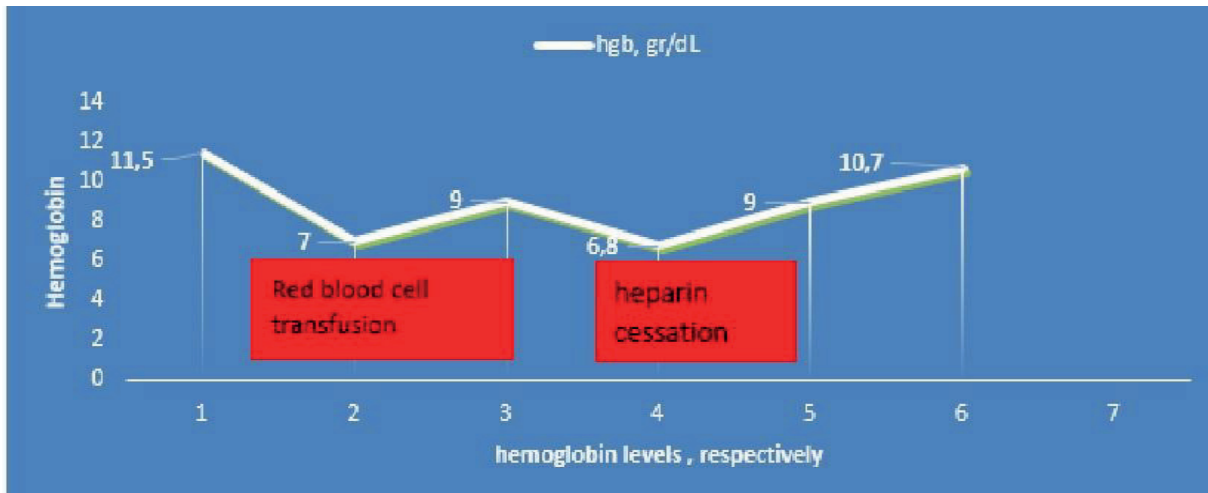


Figure 1. Hemoglobin changes in the follow-up before and after heparin cessation



Figure 2. Computed tomography demonstrates right iliac fossa located hematoma

remark spontaneous retroperitoneal hemorrhage may cause serious anemia despite lack of symptoms of hemorrhage in hemodialysis patients.

DISCUSSION

Spontaneous retroperitoneal hemorrhage is a life-threatening state that can occur in the absence of trauma or precipitating factors such as organ cysts or vascular abnormalities. The clinical features of hemorrhage are various and almost always abdominal or back pain accompany. Hypovolemic condition with low levels of hemoglobin often occurs and require administration of red blood cells. Surgical intervention is rarely urgent (1-3). Herein, we present a patient with asymptomatic SRH who is undergoing a hemodialysis program of three times per-week with standard heparin.

The incidence of SRH in hemodialysis patients is unknown, however, previous case report series revealed the fact that anticoagulant (warfarin, heparin and derivative

substances, anti thrombin, factor Xa inhibitors) and antiplatelet drugs can facilitate retroperitoneal bleeding in hemodialysis patients, as well as with those with no kidney failure. Heparin administration in hemodialysis patients is mandatory to prevent coagulation in the dialyzers. Despite the wide use of heparin in hemodialysis field, an associated between heparin use and SRH has not been examined in depth. Published cases and fewer reviews have underlined anticoagulant and/or antiplatelet plus heparin use rather than heparin use solely. Our case has no history of recent anticoagulant and antiplatelet use and normal aPTT values excluded heparin overdose (1-3).

SRH cases present with non-specific and variable clinical features and diagnosis may delay. Sudden bleeding into the retroperitoneal space causes abdominal pain, back pain, nausea, vomiting. More serious clinical findings; abdominal distention, hypotension, tachycardia, groin, abdominopelvic discomfort and swelling, paralysis due to femoral nerve compression depend on the severity of the bleeding (1-3).



In the pathophysiology and pathogenesis of SRH, it has been suggested that diffuse occult vasculopathy and arteriosclerosis of small vessels in the retroperitoneum enable them to rupture. Substantially, hemodialysis patients inherently have some risk factors for SRH such as diabetes mellitus, hypertension, the elderly, vasculitis, uremic state that enhance vascular damage. At the same time, anticoagulant/antiplatelet drugs use tend these patients to bleed. However asymptomatic retroperitoneal bleeding/hematoma is an unusual entity, it is possible that a trace of blood leakage can occur during intermittent hemodialysis sessions due to heparin administration, and may result in serious anemia in time, as well as occurred in our patient (1,2).

SRH diagnosed on the complaint of the patient during the investigation. Plain abdomino-pelvic radiography occasionally reveals loss of psoas shadow, because of low sensitivity and specificity. Despite, ultrasound and computed tomography (CT) are the good choices in the detection of retroperitoneal hemorrhage, as abdominal fluid and abnormal soft tissue mass, respectively. Besides, CT angiography may demonstrate the site of bleed, and provide additional information in hemodynamically unstable patients. Magnetic resonance imaging capable to detect retroperitoneal hematoma, but it is commonly reserved for other complication of hemorrhage such as neural compression, and is not commonly needed (2,3).

The conservative treatment of SRH involves close monitoring of vital signs (preferred in an intensive care unit), fluid and blood products replacement. Besides, precipitating factors such as the coagulopathy and uremic state in renal failure must be corrected. Surgical exploration/intervention rarely is required, especially in hemodynamically unstable patients (1-3).

In conclusion; hemodialysis patients have many risk factors for retroperitoneal bleeding. A clinician must be aware of SRH particularly in the elderly, diabetic, hypertensive patients with undergoing hemodialysis treatment with anticoagulant drugs. Radiologic imaging should be considered in the case of sudden hemoglobin fall or refractory anemia, whether have or not bleeding symptoms.

DECLARATION OF CONFLICTING INTERESTS

The author declared no conflicts of interest with respect to the authorship and/or publication of this article.

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