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Spontaneous retroperitoneal hematoma associated with combined warfarin and ticlopidine use

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Introduction

Renal tumors and vascular diseases are some of the most common causes of spontaneous retroperitoneal hemorrhage. Rarer causes include infections, and it may occur in uremic patients undergoing hemodialysis and in patients receiving anticoagulant therapy.[1] Warfarin is an anticoagulant widely used for treatment and prophylaxis. When used with aspirin and other antiplatelet medications such as ticlopidine, this can result in life-threatening complications. We report a case of retroperitoneal hematoma developing in association with combined warfarin and ticlopidine use and treated conservatively.

Case presentation

A 46-year-old woman presented to our emergency department due to abdominal pain and listlessness. She had also experienced occasional bleeding from the mouth and nose for the previous week. Abdominal tenderness was present in the right upper and lower quadrants at physical examination. Ten-centimeter ecchymotic areas were also present in the right upper quadrant and right forearm cubital region. Blood pressure was 90/60 mmHg and heart rate 120/min. Hemoglobin was 6.5 g/dl, hematocrit 20% and INR 7.8. Other blood values were urea 50 mg/dl, creatinine 1.2 mg/dl, PT 88 sec, and PTT 92 sec. The patient was catheterized, and no active macroscopic hematuria was observed, but microscopic hematuria was present. Emergency abdominal tomography was performed, and hematoma 5 × 9 × 15 cm in size was determined in the right retroperitoneal area (Fig. 1A and B). The patient was admitted to the intensive care unit. She received six units of fresh blood and five units of fresh frozen blood over two days, and prophylactic antibiotherapy was initiated.

Hemodynamic parameters stabilized. With-contrast abdominal tomography performed 10 days later revealed a 30% decrease in the hematoma (Fig. 2A and B). Her hemoglobin value was 10.6 g/dl, INR 1, and creatinine 0.6 mg, and the patient was discharged with improvement of general condition. Abdominal tomography performed in the second month revealed that the retroperitoneal hematoma had resolved almost entirely (Fig. 3A and B).

Discussion

Spontaneous retroperitoneal hematoma in association with anticoagulant use is rare. Warfarin is widely used in groups at high risk for thromboembolic events and cardiovascular diseases. Warfarin-induced retroperitoneal hemorrhage is rare, but not unknown.[2] It is also used as an anticoagulant and antiplatelet combination in the cardiovascular patient group. Warfarin is frequently used together with aspirin, or with medications such as ticlopidine and clopidogrel. The risk of hemorrhage rises as these combinations increase. These patients present to the emergency department with hemorrhage-related shock or anemia. Our patient was using a warfarin and ticlopidine combination for deep vein thrombosis and presented to our emergency department with abdominal pain, listlessness, and nasal hemorrhage. Physicians must be aware of the possibility of spontaneous retroperitoneal hematoma in the event of acute abdominal pain and a sudden decrease in hemoglobin levels. Hemorrhagic events are potential complications in patients receiving anticoagulant therapy, and their prevalence is growing. This shows the importance of close monitoring of this patient group.

Treatment may include such methods as a conservative approach, surgery, and arterial embolization.[3,4,5] Blood transfusion and close observation are very important in conservative treatment. The patient's hemodynamic status must always be considered. Surgery may be required if hemorrhage persists despite support therapy. These patients

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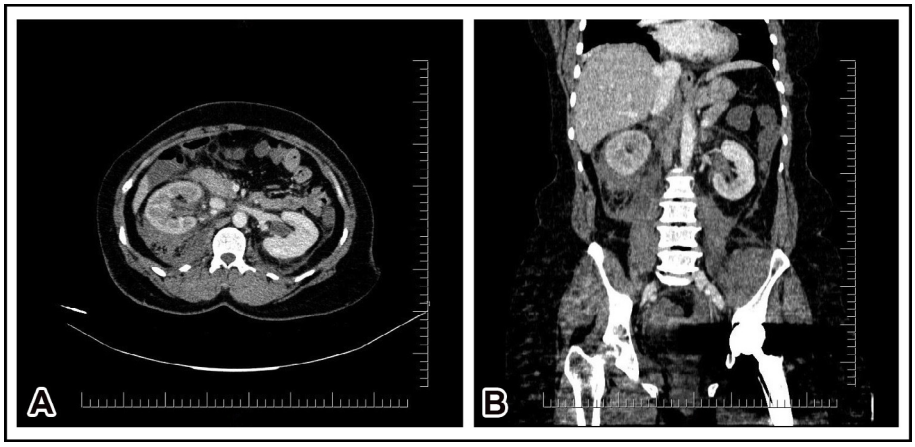

Fig. 1. A and B show the emergency abdominal tomography which was performed. At this context, hematoma 5 × 9 × 15 cm in size was determined in the right retroperitoneal area.

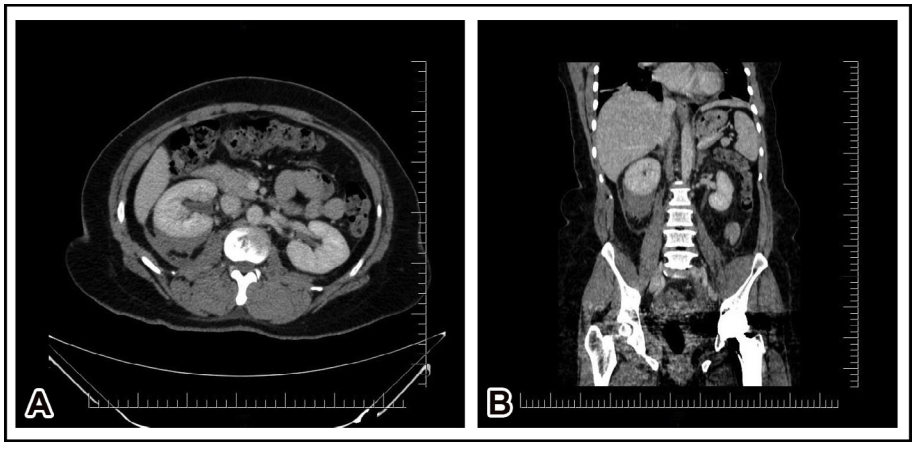

Fig. 2. A and B indicate that abdominal tomography performed 10 days later showed a 30% reduction in hematoma.

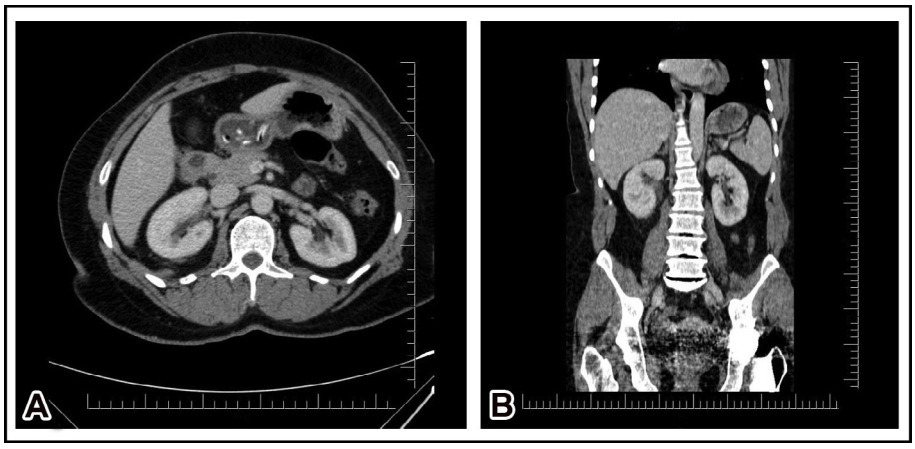

Fig. 3. A and B point out abdominal tomography which was performed at the second month. These images revealed that the retroperitoneal hematoma was almost completely lost.

must be closely monitored in the intensive care unit. Heart and respiratory failure can always easily develop, and surgical intervention in this high risk group always involves high morbidity and mortality rates. A conservative approach is appropriate in non-wide diameter retroperitoneal hematomas. We regarded a conservative approach as indicated in our own patient since the retroperitoneal hematoma was moderate in size. The hematoma resolved almost entirely at the end of two-month follow-up.

Conclusion

The point we wish to emphasize in this case is the need for much greater care in the event of a combination of anticoagulant drugs such as warfarin and antiplatelet drugs such as ticlopidine. Conservative treatment can be administered with close observation of vital signs in hemodynamically stable patients and with appropriate support therapy, without the need for surgical intervention.

Consent

Informed consent was obtained from individual participant included in the study.

Conflicts of interest

The author declares his individual contribution to this paper. And the author declares that he has no conflicts of interest.

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