

Visual Diagnosis in Emergency Medicine

HALF AND HALF ABDOMEN

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CASE REPORT

A 32-year-old man, with a history of severe hemophilia A, presented with a history of right-sided abdominal pain for 1 week. He was not on any prophylactic factor VIII. On physical examination, he had a distended abdomen with guarding and tenderness on the right side of the abdomen. There was no organomegaly. On percus-

sion, the patient had a dull note on the right flank and resonant note on the left side. There was no shifting dullness. Laboratory investigations revealed low hemoglobin (6.8 gm/dL) and isolated activated partial thromboplastin time prolongation (control 33 s, test 96 s). A plain x-ray study of the abdomen showed the shifting of bowel loops toward the left side (Figure 1A). Computed tomography of the abdomen images revealed a large hematoma

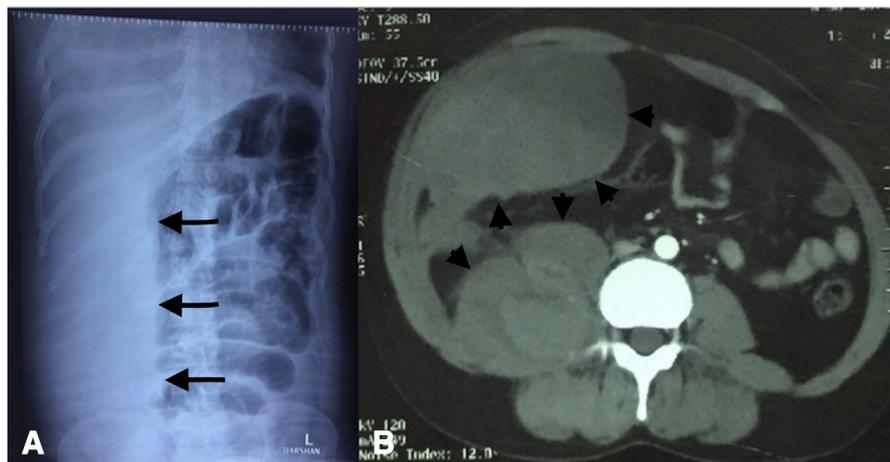


Figure 1. (A) Plain x-ray study of the abdomen showing the shifting of bowel loops (arrows) toward the left side (half and half abdomen sign). (B) Computed tomography of the abdomen images showing a large hematoma anteriorly on the right side (13 × 8 × 5 cm) along with two retroperitoneal hematomas (arrowhead) (largest diameter 7 and 5 cm, respectively), displacing the gut loops toward the left side.

anteriorly on the right side ($13 \times 8 \times 5$ cm) along with two retroperitoneal hematomas (largest diameter 7 and 5 cm, respectively), displacing the gut loops toward the left side (Figure 1B). The patient was started on factor VIII replacement (100%) therapy based on the clinico-radiological findings.

DISCUSSION

Hemophilia A is an X-linked recessive disorder of factor VIII deficiency. The severe form is defined as factor VIII activity $< 1\%$ (1,2). The patient with severe hemophilia typically presents with hemarthrosis and muscle hematoma. Intra-abdominal bleeding is a significant and life-threatening complication in a hemophilic patient. It is one of the major causes of mortality in these patients (2,3). Plain x-ray study may show obscured psoas muscle outline or displaced bowel loops called half and half abdomen or displacing loop sign. These are nonspecific,

but significant findings, particularly in a resource-constrained setting where further radiological facilities may not be available (4,5). Hence, in a known case of coagulation disorder, acute abdomen with displacing loop sign is an important clue to make the diagnosis and to start early therapy.

REFERENCES

1. Jandial A, Mishra K, Sandal R, et al. Hemophilia in the developing world: transforming lives through international collaboration. *Blood Adv* 2018;2(suppl 1):39–41.
2. Ary KA, Singla V, Mishra K, et al. Intra-abdominal pseudotumors: a rare presentation of von Willebrand disease and its management in resource constraint setting. *Indian J Hematol Blood Transfus* 2019;35:390–1.
3. Jones JJ, Kitchens CS. Spontaneous intra-abdominal hemorrhage in hemophilia. *Arch Intern Med* 1984;144:297–300.
4. Azam B, Kumar M, Mishra K, Dhibar DP. Ischemic colitis. *J Emerg Med* 2019;56:e85–6.
5. Furlan A, Fakhran S, Federle MP. Spontaneous abdominal hemorrhage: causes, CT findings, and clinical implications. *AJR Am J Roentgenol* 2009;193:1077–87.