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CASE REPORT

Non-traumatic intramural hematomas in patients on anticoagulant therapy: Report of three cases and overview of the literature

Hématomes intramuraux non traumatiques chez les patients sous anti-coagulant: rapport sur trois cas et revue de la littérature

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Introduction: Non-traumatic intramural hematoma in the gastrointestinal tract is a rare event that could have diverse clinical presentation. The small intestine is the site of predilection to this condition. Intestinal obstruction is the main presentation. Various degrees of acute abdominal pain with peritoneal signs would make a cumbersome diagnosis.
Case reports: Retrospective review of the surgical emergency admissions database was conducted back to 1994. A literature overview was conducted. Three cases were retrieved and presented in this manuscript. More than 20 reports, with acute abdominal pain as a main presentation, were found in the literature.
Discussion: Complete history taking is mandatory not to miss such an uncommon complication. The INR level should be asked for in every case on oral anticoagulant presenting with acute abdominal pain. CT scan is the main diagnostic tool. Conservative management is the standard therapeutic approach.

Introduction: L'hématome intramural non traumatique du tube digestif est un événement rare qui peut présenter un tableau clinique diversifié. L'intestin grêle est le site de prédilection. L'occlusion intestinale est le tableau clinique le plus fréquent. Des degrés divers de douleur abdominale aiguë avec signes péritonéaux sont susceptibles d'engendrer une erreur de diagnostic.
Rapports de cas: Une lecture retrospective de la base de données des admissions chirurgicales en urgence depuis 1994, a été mené. La littérature a été consultée de façon globale. Trois cas ont été selectionné et présentés dans cet article. Plus de 20 rapports mentionnant une douleur abdominale aiguë comme principal tableau clinique ont été trouvés dans la littérature.
Discussion: L'anamnèse détaillée est nécessaire pour mettre en évidence cette complication rare. Le dosage de l'INR doit être demandé pour chaque patient sous traitement anticoagulant oral présentant un tableau clinique de douleur abdominale aiguë. L'outil de diagnostic principal est le scanner. L'approche thérapeutique standard est une prise en charge conservatrice.

African relevance

- Oral anticoagulants are commonly prescribed medications in Africa.
- Many African countries are close to the equator at high ambient temperatures, likely to be a precipitating factor for the development of hematoma due to oral anticoagulant.
- Medication monitoring is less precise in Africa due to many factors.

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Introduction

Diagnostic uncertainty prevails in about 40% of the cases presenting with abdominal pain.[1] The primary goals of management are to diagnose the etiology of the abdominal pain and then to ascertain the necessity for surgical intervention. In order to avoid non-indicated surgical procedures, a meticulous workup is crucial.[2–4] However, a differential diagnosis is not always that forthcoming. Common patterns tend to guide clinicians in terms of further evaluation.

Unfortunately, in at least a third of cases the clinical characteristics are atypical, which render the diagnostic challenge more challenging.[2,4] Accurate history taking remains the most fundamental step when approaching these cases.[5–10]

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A medication history represents an important component of history taking as it might provide clues to both the patient's background and current problem.

Anticoagulants are often prescribed to treat a variety of surgical and medical conditions. One of the rarely reported complications of this class of drugs is the occurrence of intramural hematomas in the gastro-intestinal tract.[11] We hereby report three cases of intramural hematomas in various parts of the gastrointestinal tract. The cases presented to our emergency center (EC), Aljahraa Hospital (Aljahraa, Kuwait), with acute abdominal pain, with and without intestinal obstruction.

Case report 1

A 40 year-old male patient presented to our EC with upper abdominal pain and vomiting. The patient had chronic obstructive pulmonary disease, ischemic heart disease (IHD), dilated cardio-myopathy and previous myocardial infarction. The patient was on warfarin for his extensive cardiac history. His abdominal examination revealed a tender and rigid upper abdomen with no palpable masses and bowel sounds audible. Rectal examination showed normal color stools. Further examination revealed minor bleeding from the gums. His admission laboratory work-up showed mild anemia (hemoglobin 10 g/dl), leucocytosis (WBCs 17,700/dl) and a deranged coagulation profile (INR 17). Abdominal ultrasound was performed which revealed the presence of an 18 mm thick hypoechoic gastric wall. This was followed by endoscopy, which showed diffuse submucosal hemorrhage involving the entire body and antrum of the stomach extending to the upper part of the duodenum with no evidence of active bleeding. Computed Tomography (CT) of the abdomen confirmed the extension of the hematoma (Fig. 1). The patient was given a stat dose of vitamin K and a transfusion of fresh frozen plasma was commenced and a 13 day admission ensued for correction of the coagulation deficits and observation. Follow up ultrasound showed the reduced size of the stomach thickness after five days of admission. Subsequent upper gastrointestinal endoscopy after ten days of admission showed significant improvement of the mucosal appearance.

Case report 2

A 62 year-old male patient presented to our EC complaining of abdominal pain associated with constipation for two days. The patient had IHD and chronic atrial fibrillation for which he required warfarin. His vital signs were stable on admission, but his abdomen was distended with diffuse rebound tenderness and hypoactive bowel sounds. A rectal examination revealed melena. Abdominal ultrasound was performed which reported significantly thickened small bowel loops and an incidental, simple, left renal cyst. In addition, patency of the mesenteric vessels was unclear. Abdominal CT with intravenous contrast showed thickening of the proximal 20 cm of jejunum with a patent superior mesenteric artery and vein (SMA and SMV) (Fig. 2). His laboratory work-up demonstrated an INR of 10.5. There were no significant derangements in the rest of the laboratory work-up. Pain improved dramatically after correction of anticoagulation with vitamin K, fresh frozen plasma and intravenous fluids. The patient was discharged after four days with an adjusted dose of oral anticoagulation.

Case report 3

A 65 year-old male patient, diabetic with IHD on warfarin was admitted to our inpatient surgical ward through the EC because of abdominal pain. There was no apparent indication for his warfarin treatment. The pain was described as diffuse, dull, and aching with maximal tenderness in the right iliac fossa. Clinical examination of the patient showed tenderness on the right lower quadrant of the abdomen, with no change in the stool color on rectal exam. All laboratory investigations were within normal ranges except for a high blood sugar and an abnormal coagulation profile (INR 9). Abdominal ultrasound was not conclusive, but CT with intravenous contrast of the abdomen showed a 10 cm thickened terminal ileal loop with normal mesenteric blood flow (Fig. 3). Vitamin K, fluid resuscitation and fresh frozen plasma were given intravenously to correct the coagulation. The patient's symptoms resolved by the second day of admission and discharged after a further two days with a referral notice to his primary care physician to review the indications for anticoagulation.

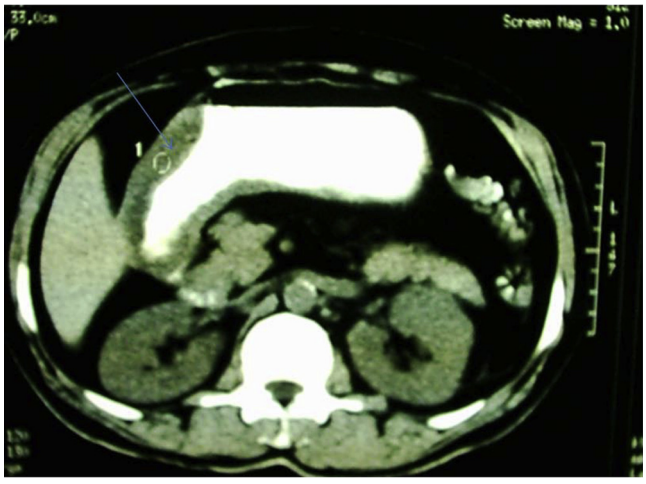

Figure 1 Abdominal CT with thickened antrum of the stomach (arrow).

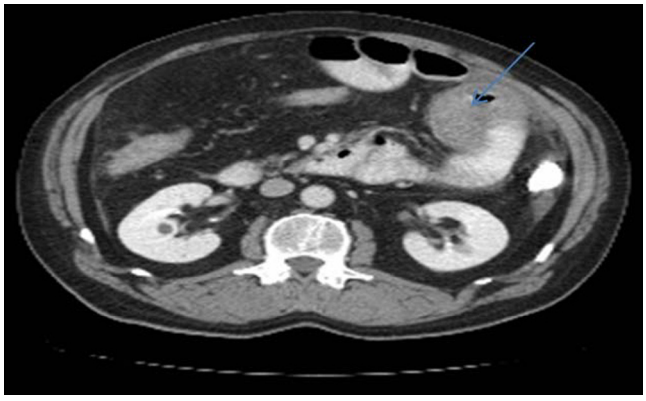

Figure 2 Abdominal CT showing increased thickness of the proximal jejunum (arrow).