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INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/16589
DOI URL: http://dx.doi.org/10.21474/IJAR01/16589

RESEARCH ARTICLE

HEMOBILIA DUE TOVITAMIN K ANTAGONISTTHERAPY: ACASE REPORT AND REVIEW OF LITTERATURE

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Manuscript Info

Manuscript History
Received: 31 January 2023
Final Accepted: 28 February 2023
Published: March 2023

Abstract

Haemobilia is the result of a pathological communication between the bile ducts and the intra- or extra-hepatic vessels. Iatrogenic haemobilia is a rare complication of oral anticoagulants. The classic symptomatology consists of three signs or the Sandbloom triad, which combines hepatic colic, jaundice and GI bleeding. We report the clinical case of a patient who presented with hemobilia after introduction of anticoagulant in a field of valve disease.

Introduction:-

Anticoagulant-related hemorrhagic complications remain the concern of physicians when initiating anticoagulant therapy. Hemobilia is considered a rare but serious complication of oral anticoagulants. We report the clinical case of a patient who presented with hemobilia after introduction of anticoagulant in a field of valve disease.

Case presentation:

An 88-kilogram, 37-year-old patient presents to the emergency room of the Casablanca University Hospital for a febrile right hypochondrium (HCD) pain evolving for 6 days associated with mildhematemesis. The history of a hospitalization of 20 days was reported for a rheumatic valve disease, of recent discovery, with a severe Mitral stenosis (Mitral valve area = 0.8 cm^2) and a mixed aortic valve disease (moderate aortic stenosis, moderateaortic regurgitation) is noted. The electrocardiogram showed an atrial fibrillation; hence the patient was placed on Digoxin, Aldactone and Acenocoumarol (4mg / day).

10 days after initiation of treatment, the patient presented sudden right hypochondriumpain. An abdominal ultrasound showeda heterogeneous echogenic material in the gallbladder which may be related to a pyocholecystis and undilated bile ducts.The hemostasis assessment was disturbed: A Prothrombin time (PT)at 10% and international normalized ratio (INR) at 7.The patient was then referred to a specialized structure the same day.

On admission, the patient presented a general pallor with discolored conjunctiva.

Abdominal examination found a positive Murphy's sign with no defense or contracture.

The biology showed: hyperleukocytosis at 14.000/mm^3, hemoglobin at 8.3 g/dl and normal platelet count. The PT at 11% and an INR at 7.8.the lipasemia and liver function test was normal.

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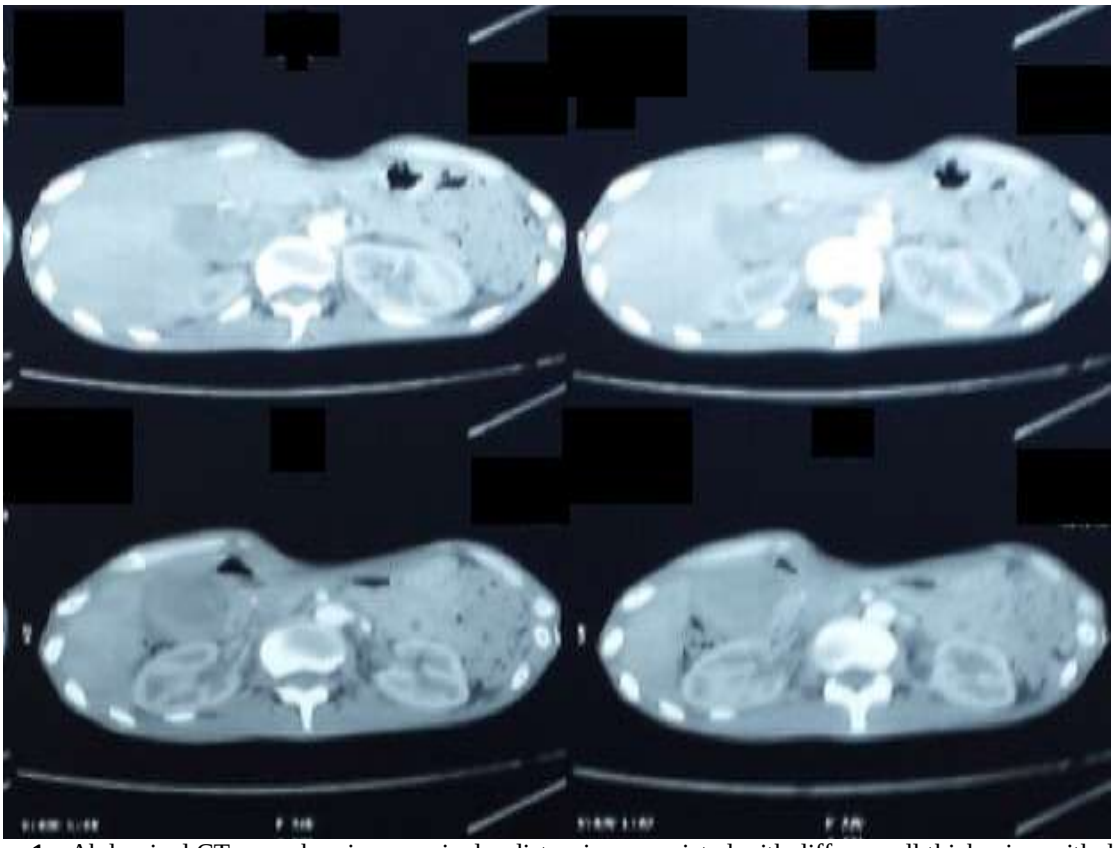

Picture 1:- Abdominal CT scan showing a vesicular distension associated with diffuse wall thickening with dense content + minimal bilateral ureterohydronephrosis.

An abdominal CT scan confirmed the data from the ultrasound previously done with strictly normal endoscopy.

The surgical procedure was postponed and the patient was placed on bi-antibiotic therapymade of ceftriaxone metronidazole and VKA antagonization (vitamin k and Plasma transfusion).

On Day 3 of his hospitalization, the hemostasis assessment normalized with disappearance of the HCD pain. Surgical exploration the same day revealed hemobilia with free of mechanically obstructioncommon biliary duct, resulting in cholecystectomy being performed without any particular incident.

The patient was placed postoperatively on a therapeutic dose of LMWH followed by VKA and was declared discharged on Day 10 with a good clinical evolution and effective anticoagulation with 2mg/day of Acenocoumarol.

Discussion:-

Hemobilia refers to a bleeding within the lumenof the bile ductsand is an atypical form of upper gastrointestinal bleeding.Iatrogenic condition, trauma and neoplasia are the most common causes described.

With regard to epidemiology three interesting but historical studies stand out: Sandblom(1) and al. reported in a 355 cases serie a traumatic cause in 38.6% and an iatrogenic in 16.6% in 1973; We had to wait until 1987 with Yoshida(2) in a 103 cases serie ,by reporting contradictory results compared to the first study (traumatic 19% and iatrogenic 41%),this being due to the progress of hepatobiliary surgery as main factor. This finding was confirmed with the third study by Green and al. in 2001 (3).

Clinically, it can be asymptomatic, revealed by an iron deficiency anemia discoveredincidentally. But often, we have the Quinck's triad: right upper quadrant pain, jaundice and upper gastrointestinal bleeding with simultaneous presence in 20%-35% of cases(3)(4).

The difference in timing of symptoms can point to the origin of the bleeding. A post-Endoscopic retrograde cholangiopancreatography hemobilia is mostly seen immediately after or within days of the procedure.

The occurrence of this extravasation of blood in the biliary ducts can come from either a venous or arterial source. the arterial origin, more dangerous, will be suspected in front of a significant blood loss as well as the absence of a self-limited bleeding.

The biochemical properties of blood and bile lead to the separation of the two liquids, which explains the possibility of blood clots forming, hindering the flow of bile(5).

Laboratory tests can present, in depend on severity, etiology and timing, an anemia and/or elevated serum liver enzyme. Kim and al. (6) published a series of 37 cases of hemobilia with a mean hemoglobin level of 10.6 g/dl (range, 7.3 – 15.8 g/dl) , aspartate aminotransferase, 353 IUlL; alanine aminotransferase, 243 IU/l, total bilirubin, 10.5 mg/dl, gamma glutamyl transpeptidase, 385 IU/l and alkaline phosphatase, 834 IU/l.

Several causes have been described as being at the origin of this bleeding:
1. Iatrogenic causes:percutaneous maneuvers (transcutaneous or trans-jugular liver biopsy, cholangiography or percutaneous biliary drainage, percutaneous treatment of tumors by radiofrequency, etc.), invasive endoscopic biliary manipulations (dilations, stents, lithotripsy, etc.), operative complications (wound of the hepatic artery or intrahepatic bile ducts, etc.)
2. Traumatic causes:complications of hepatic trauma (fracture, subcapsular hematoma, contusion, penetrating trauma, etc.)
3. Malignantcauses:tumor pathology (angiosarcoma, cholangiocarcinoma, hepatocellular carcinoma, polyposis, papillomatosis, angiomas, metastases, etc.)
4. acquired or congenital coagulopathy
5. Infectious causes: cholangitis (viral or other) or parasitosis (Ascaris, Echinococcosis, etc.).

The diagnosis is suspected mainly clinically with the looking for the Quinck's triad, particularly in the context of an upper abdomen penetrating trauma or an hepato-biliary manipulation.

Abdominal CT with angiography protocolis the imagingtest of choice since it allows confirmation of the diagnosis , the location of the lesion and can be used to plan subsequent endovascular or surgical management, especially for patients who cannot tolerate endoscopy(7).

Gastroduodenoscopy is the first-line examination in upper or lower gastrointestinal bleeding, thus allowing visualization of bleeding in the papilla. further visualization of the biliary tree is possible using ERCP with also the possibility of performing a therapeutic option. Ultrasound is of no interest in the acute phase.

Whether for diagnosis or for a therapeutic procedure, conventional angiography remains a wise choice, its invasive nature also limits its use. In the event of inconclusive non-invasive imaging: not having identified the hemorrhagic vessel, angiography of the celiac trunk as well as of the portal vein should be done. If an indication for hepatic artery embolization has been made, the portal trunk must be emptied, for fear of hepatic ischemia since the liver is vascularized by both vessels (8).

Management must be rapid since this pathology is considered as an emergency.

Hemostasis as well as the restoration of bile flow are the mainstays of the treatment of hemobilia. A blood clot formed in the bile duct does not dissolve due to the disturbance of the fibrinolytic action of the bile(9).

The treatment can be done in two stages:
1. Correction of coagulopathy, treatment of hemorrhagic shock
2. Locate the bleeding site and the surgical procedure:
-Simple cholecystectomy
-Resection of the bleeding hilar arterial segment
-Selective embolization if intrahepatic bleeding
-Hepatic resection if previous procedures have failed

In our clinical case, the patient presented with an Anticoagulant-Related Hemorrhagic Complications with bleeding from the gall bladder (hemobilia). The diagnosis was made during the surgical intervention given the rarity of these cases in our context and the lack of diagnostic experience and resources in this regard.

A review of the literature, we find a similar case of patient having presented an accident to the AVK (under warfarin) with a confirmed hemobilia and treated by an arteriography.

Conclusion:-

To conclude, any patient under AVK who presents pain from HCD, jaundice or digestive hemorrhage, should suggest hemobilia as a differential diagnosis, thus prompting rapid management for a better prognosis.
It is not as rare as it was thought to be. With increasing knowledge of its diagnosis and treatment, the number of misinterpreted cases is decreasing.

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