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Fistulized Hydatid Cyst Into The Duodenum : An Unusual Presentation (Case Report)

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Abstract:
The Hydatid Cyst Is A Zoonosis Widespread Throughout The World, Is Endemic In Morocco. Its Complications Are Numerous And Include Those Related To Compression Of Adjacent Viscera, Infection Of The Cyst Contents Or Perforation. Fistulization Of The Hepatic Hydatid Cyst Into The Duodenum Is An Extremely Rare Complication Whose Diagnosis Is Difficult. We Report The Clinical Case Of A Spontaneous Fistiluzation Of The Hepatic Hydatid Cyst Into The Duodenum Revealed By A Digestive Haemorrhage, Through Which We Recall The Diagnostic Difficulties Of This Unusual Presentation As Well As The Therapeutic Modalities.
Keywords: *Hydatid Cyst – Digestive Hemorrhage – Duodenal Fistula - Liver*

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I. Introduction :

The hydatid cyst is an anthropozoonosis due to the development in humans of the larva of Echinococcus granulosus. It is endemic in Morocco and poses both a public health problem and an economic problem.

This disease is characterized by its great clinical polymorphism and the severity of its complications. The most common are those related to compression of adjacent organs or perforation in the biliary tract, pleural or pericardial cavity, or even infection of the cyst. However fistulization into the duodenum is considered as an extremely rare presentation even in endemic areas.

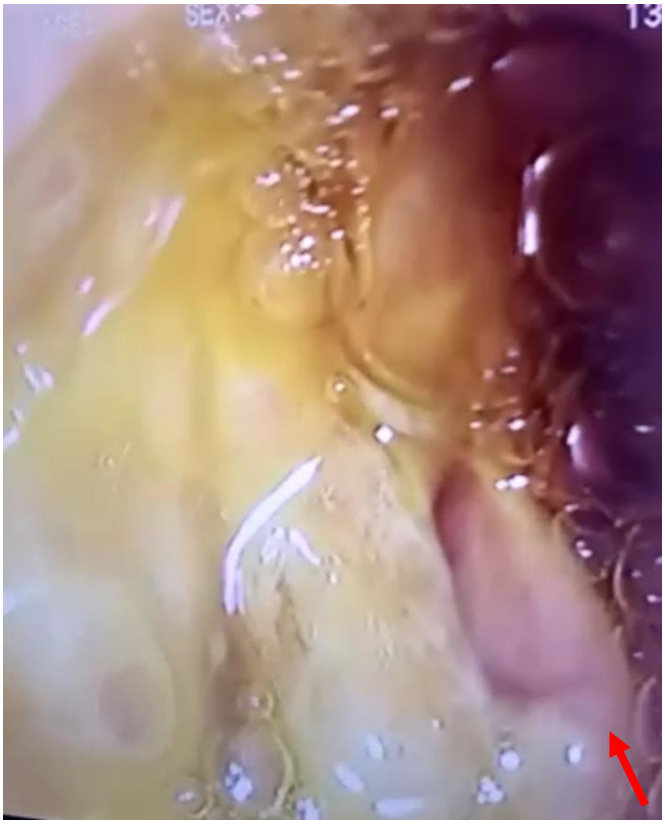
We present a rare and unusual case of hydatid cyst of the liver complicated by duodenal fistula , revealed by an upper digestive hemorrhage, and through this observation we recall the diagnostic difficulties and the therapeutic modalities.

II. Observation :

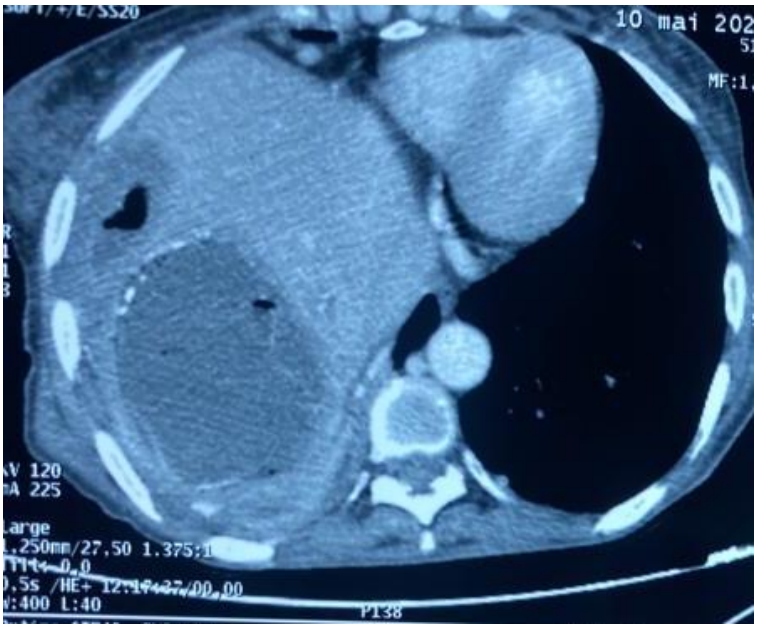
Ms. YA, 52 years old, with no particular history, admitted to the emergency department for upper digestive haemorrhage made of hematemesis of moderate abundance associated with abundant vomiting and anemia symtoms. The biological assessment objectified a hemoglobin at 6g/dl, a hyperleukocytosis at 16520 elements/mm3, polynuclear neutrophils at 13381 elements/mm3. The patient was transfused of 2 units of red blood cells, put on proton pump inhibitors.

An esophago-gastro-duodenal fibroscopy had objectified the presence of stigmata of recent bleeding lining the gastric mucosa with the presence at the DI of a duodenal fistula admitting the biopsy forceps (Picture 1) and bringing purulent fluid. An abdominal scan was performed and showed the presence of a rounded, well-limited, thick-walled, supra-hepatic collection, enhanced after injection of contrast material, of heterogeneous structure, liquid closing air achieving a hydro-aeric level, and calcifications suggesting a hydatid cyst with the presence of a cysto-duodenal fistula (Picture 2,3).

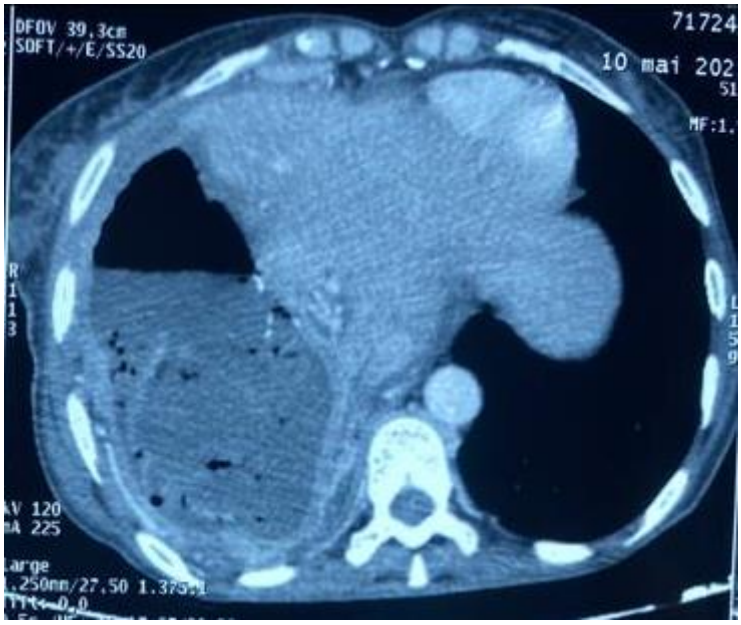
Ms. Y. A benefited from a surgical treatment, the exploration had objectified the presence of a voluminous hydatid cyst of segments V, VI, and VII adhering to the duodenum, with the presence of a cysto-duodenal fistula. A resection of the protruding dome was performed with closure of the duodenal fistula after duodenal collar and gastro-entero-anastomosis. The post-operative follow-up was simple. The evolution after 3 months was favorable with clinical and biological improvement.



Picture 1: Duodenal fistula visualised at EGD fibroscopy



Picture 2: CT scan visualising the hydatid cyst fistulized into the duodenum



Picture 3: CT scan visualising the hydatid cyst fistulized into the duodenum

III. Discussion :

Hydatidosis is present worldwide except Antarctica. In endemic regions, incidence rates can reach more than 50 per 100,000 person-years. The natural history of this zoonosis is characterized by the occurrence of numerous complications dominated by rupture and infection. [1]

Rupture of the hydatid cyst is probably the most common complication occurring in approximately 15% of cases. It frequently occurs in the biliary tract or in the peritoneal cavity [2,3].

Spontaneous rupture in a hollow viscus is an extremely rare complication and the most frequent site of perforation is the stomach. Only 0.29% of operated hepatic hydatidosis were perforated in the gastrointestinal tract and only 0.15% showed duodenal fistulization [4]. Communication between the hydatid cyst and the duodenal lumen almost always occurs when the cyst is located on the underside of the liver [4]. This rare localization was objectified in our patient. A series of 2 cases of hydatid cyst fistulization in the duodenum was reported by Daldoul et al [7].

Two other conditions are required, one is the infection of the contents of the cyst with the formation of adhesions between the cyst and the surrounding organs. The second mechanism is continuous mechanical friction by a thick or calcified pericyst progressively eroding the wall of the hollow viscus. Sometimes, the initial pathology is not an infection of the cyst but an alteration of the wall of the duodenum, particularly in the case of a peptic ulcer [5,6].

The clinical presentation can be rich, manifested by hydatidemesis or emission of daughter vesicles in the stool. However, it can be reduced to non-specific signs such as abdominal discomfort or pain, dyspepsia, fever, or more rarely gastrointestinal bleeding such as the case of our patient. [7]

Esophago-gastro-duodenal fibroscopy and abdominal CT scan are the examinations of choice. Upper digestive endoscopy can show indirect signs such as extrinsic compression of the gastroduodenal lumen by the hepatic cyst, or rarely the area of direct involvement of the duodenum. [8]

Abdominal computed tomography also makes it possible to characterize and locate the hepatic cyst and to classify it according to the Gharbi classification. Direct communication between the cyst and the duodenal lumen can be demonstrated and the presence of air in case of superinfection. [9]

Management is essentially surgical; and depends on the degree of involvement of the hollow viscera. It includes the closure of the cysto-digestive fistula, the treatment of the cyst and the repair of the duodenal fistula.

If the duodenal fistula is small, the duodenal breach will be sutured and associated with gastric aspiration. Otherwise, when it is very large, the defect will be transformed into a directed fistula associated with the diversion of the upper digestive tract (gastro-entero-anastomosis, pyloric exclusion). [3] Concerning our patient, she underwent resection of the protruding dome with gastro-entero-anastomosis after duodenal exclusion.

IV. Conclusion :

A fistulized hydatid cyst in the duodenum is an unusual presentation. It is an extremely rare complication, revealed in our case by upper gastrointestinal bleeding. The esophago-gastro-duodenal fibroscopy and the abdominal computed tomography allowed the highlighting of the cysto-duodenal fistula. The treatment is essentially surgical of the hydatid cyst with closure of the fistula.

References :

[1]. Craig, PS, McManus, DP, Lightowlers, MW, Chabalgoity, JA, Garcia, HH, Gavidia, & Schantz, PM (2007). Prevention and control of cystic echinococcosis. The Lancet infectious diseases, 7(6), 385-394.
[2]. Lo Casto A, Salerno S, Grisanti M, Mastrandrea G. Hydatid cyst of the liver communicating with the left colon. J Radiol 1997; 70:650-1.
[3]. Diez Valladares L, Sanchez-Pernaute A, Gonzalez O, Perez-Aguirre E, Talavera P, Gutierrez del Olmo A, et al. Hydatid liver cyst perforation into the digestive tract. Hepatogastroenterology 1998; 45:2110-4.
[4]. Noguera M, Alvarez-Castells A, Castella E, Gifre L, Andreu J, Quiroga S. Spontaneous duodenal fistula due to hepatic hydatid cyst. Abdom Imaging 1993; 18:234-6.
[5]. Nouira K, Hila H, Bedioui H, Baccar S, Ben Messaoud M, Ksantini R, et al. Rupture of hydatid cyst of the liver into the duodenum: a case report. Tunis Med 2007; 85:979-81.
[6]. Pedrosa I, Saíz A, Arrazola J, Ferreirós J, Pedrosa CS. Hydatid disease: radiologic and pathologic features and complications. Radiographs 2000; 20:795-817.
[7]. Daldoul, S., Moussi, A., & Zaouche, A. (2013). Spontaneous fistulization of hepatic hydatid cyst into the duodenum: an exceptional complication. J Coll Physicians Surg Pak, 23(6), 424-6.
[8]. Gandham, VS, Pottakkat, B., Panicker, LC, & Hari, RV (2014). Hepatogastric fistula: a rare complication of pyogenic liver abscess. Case Reports, 2014, bcr2014204175.
[9]. Mowji PJ, Cohen AJ, Potkin B, Viltuznik J: Amebic liver abscess with hepatoduodenal fistula. Am J Gastroenterol. 1987, 82:558-559.