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RESEARCH ARTICLE

HYDATIC CYST OF THE LIVER OR HEPATIC MUCINOUS CYSTADENOMA

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Abstract

Mucinous cystadenomas of the liver are rare cystic neoplasms, often mistaken for simple cysts or hydatid cysts of the liver. They are generally benign tumors, often discovered incidentally on imaging or during independent surgeries. Despite their tendency to grow slowly, mucinous cystadenomas of the liver can reach symptomatic dimensions. And given their potential for malignant transformation into mucinous cystadenocarcinomas, a misdiagnosis can have serious secondary consequences. We report the case of a 55-year-old woman with chronic right hypochondrium pain in whom a mucinous cystadenoma of the liver was accidentally discovered during surgery for hepatic hydatid cyst; at the general surgery department at the ARRAZI Hospital – UHC Mohammed VI in Marrakech, Morocco.

Introduction:-

Mucinous cystadenomas of the liver are rare cystic neoplasms: 100 to 1,000 times rarer than the cyst biliary [1], that usually arise in the liver or extrahepatic bile ducts and may show malignant degeneration into cystadenocarcinomas.

These tumors affect eight times out of ten women who are almost always over 40 years old [2]. And account for less than 5% of all the cysts found in the liver.

Eighty-five percent of tumors are located in intrahepatic; the other localizations concern extrahepatic bile ducts or more rarely the gallbladder [3].

On histopathological examination, two groups can be distinguished according to the presence or absence of mesenchymal stroma that resembles ovarian stroma (OS) [4, 5].

In this study we describe the case of a middle-aged woman suffering from chronic right hypochondrium pain. Diagnosed with a hepatic hydatid cyst type 3, and during surgical exploration it was an aspect suggestif of a mucinous cystadenoma of the liver.

Case Report:

A 55-year-old woman approached the outpatient service of the Arrazi Hospital of UHC Mohammed VI, Marrakech, Morocco, complaining of abdominal pain in the right hypochondrium for 2 years. Without clinical cholestasis or other associated signs, having contact with dogs as a history.

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On clinical examination she presented a mass in the right hypochondrium of about 6 cm long axis, and sensitive to palpation, the rest of the clinical examination is unremarkable.

Computed tomography objectified a large cystic mass at the expense of segment IV of the liver, measuring 180x120mm, extended in height between the dome and the inferior surface of the liver with an inferior exophytic portion measuring 160mm, compatible with a type 3 hydatid cyst. It pushes back the gallbladder which is lithiasis, and compressing the hepatic hilum with moderate dilation of the intrahepatic bile ducts.

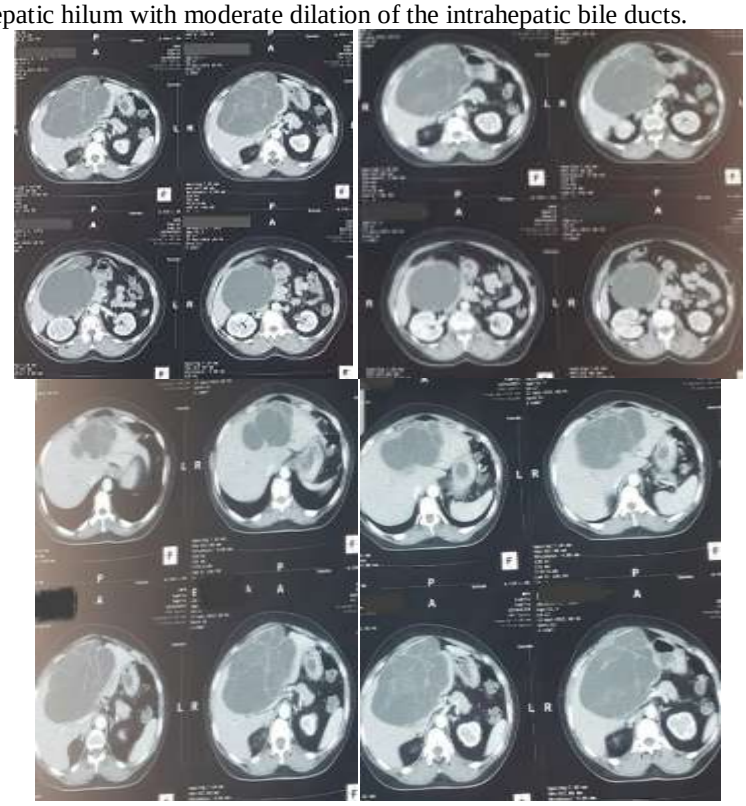

Fig1:- Abdominal CT scan showing cystic mass at the expense of segment IV of the liver, which pushes back the gallbladder which is lithiasis, and compressing the hepatic hilum with moderate dilation of the intrahepatic bile ducts.

The hydatid serology was negative, and the rest of the laboratory tests are unremarkable.

Surgical exploration objectified a cystic mass at the level of the liver straddling segments V and IV, measuring approximately 14x14x10cm, with serous and mucinous content, multicloisonne, with thickened wall, with intramural nodules of mucins.

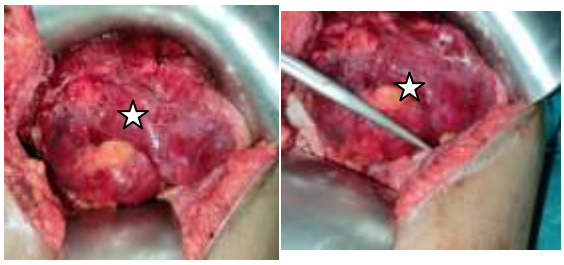

Fig 2:- Intraoperative image of the cystic mass at the level of the lower edge of the liver (star).

The operative procedure consisted of aspiration and collapse of the contents of the hepatic cyst after sampling for anatomopathological, cytobacteriological study and dosage of tumor markers, then a resection of the protruding dome of the cyst was done, and cauterization of the inner wall of the cyst, and cholecystectomy.

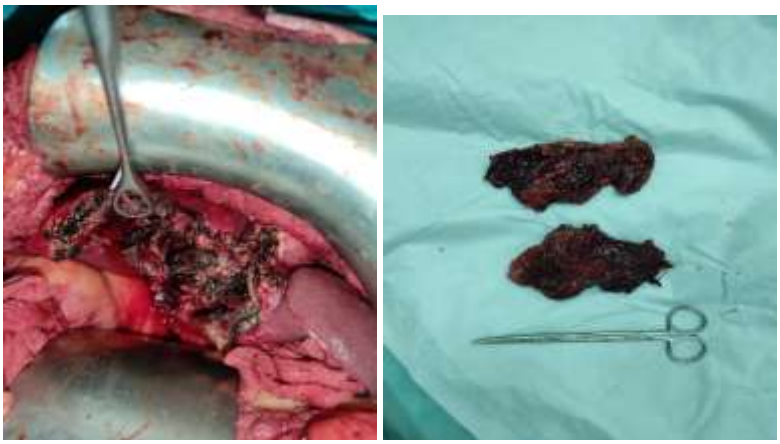

Fig3:- Intraoperative image after resection of the protruding dome of the cystic mass and cauterization of the internal wall of the cyst (L). Wall of the cystic mass of the liver (R).

As for the pathological result, it was a hepatic mucinous cystadenoma: cystic mucinous neoplasm of the liver according to (WHO), without dysplastic lesions. And cytology: mucinous content with inflammatory reworking without cytological signs of malignancy.

The CA19-9 value assayed in the sample liquid was 76.3U / ml.

The post-operative consequences were simple.

Discussion:-

Mucinous cystadenomas of the liver are rare cystic neoplasms. The prevalence is between 1 in 10000; [3]. It is generally a disease of middle-aged women with 80–90 % of cases occurring at a mean age of 50 years. The malignant form tends to occur in women 10 years older [6,7,8].

The pathogenesis of cystadenomas is unknown. The presence of abnormal bile ducts near the tumor could suggest a congenital origin, although its origins are still debated, some authors have favored an acquired etiology such as a process reactive to focal lesion. [9,10,11].

Those who support a congenital etiology have suggested that it may result from obstruction of the aberrant intrahepatic bile ducts. or derive from ectopic germ cells in the liver. [12]. The speculated origins of these germ cells include the embryonic foregut, the ovaries [13], and the gallbladder. Tumors look very similar in appearance to mucinous cystadenomas of the pancreas [9]., and to the opportunity co-existed, suggesting another possible common origin. Reflecting these observations, biliary mucinous cystadenomas have recently been redefined as mucinous cystic neoplasms, in the 2010 classification of the World Health Organization (WHO) [14].

In the majority of cases, tumors are diagnosed by the occasion of clinical symptoms which are usually abdominal pain or finding an abdominal mass. More rarely, it is nausea or vomiting or another jaundice which is linked either to the compression of the airway's bile ducts by the cystic tumor, either to communication with the bile ducts with mucinous plugging passages. [2].

Imaging diagnosis is based on ultrasound and CT scan of the liver. The abdominal ultrasound reveals an anechoic mass, of large size, of fluid content, with posterior reinforcement, presenting internal echoes corresponding to the partitions delimiting cubicles of various sizes. Papillary formations developed from the walls are possible. [15,16,17].

The CT scan shows masses of density less than 30 Hounsfield units, with internal septa and wall nodules. [16].

On MRI, the lesion is usually hypointense in T1 and strongly hyper-intense in T2. The internal architecture (partition and wall nodule) is clearly identified. Sometimes lesions have a signal more variable in T1, hyper-signal

or heterogeneous, in particular when the lesions have a hemorrhagic component or when the liquid is particularly rich in mucins [17]. And it defines the cyst's relationship with local vascular structures.

It is not possible to distinguish clearly with the imagery data the appearance of cystadenomas and cystadenocarcinomas. However, the presence of partitions and wall nodules suggests the degeneration as well as the presence of liquid hemorrhagic. The presence of calcifications was also reported more often in cystadenocarcinomas than in cystadenomas. [14].

The cytological examination of the sediment and the determination of the carcinoembryonic antigen in the intracystic fluid are of interest for the diagnosis of cystadenocarcinoma. In difficult diagnostic forms, percutaneous puncture and aspiration of the fluid with detection of mucin and determination of CA 19-9 in the cystic fluid may be of interest. The intracystic concentration of CA 19-9 is five times higher in cystadenoma and cystadenocarcinoma than in other benign lesions. [18,19,20]. however, due to the risk of dissemination, many authors do not recommend this gesture.

Anatomopathologically, there are two forms: a form which has an ovarian stroma (OS), which is observed mainly in women and whose evolution is usually benign; this form is the most common and accounts for 85% of all cystadenomas [8]; the other form does not have an ovarian stroma, is more often seen in men and has a more aggressive course. Exceptionally, it is not a mucinous cystadenoma but serous microcystic cystadenomas without stroma mesenchymal.

The differential diagnosis includes hematoma, a congenital solitary cyst, polycystic liver disease, cystic hamartoma, a post-traumatic cyst, liver abscess, necrotic neoplasm, hydatid cyst, Caroli's disease and cystic metastases.

The surgical indication is definite in cystadenomas mucinous [21, 22] when the diagnosis is evoked on morphological and biological arguments. Indeed, the risk of cystadenocarcinoma is high and there are no diagnostic, morphological or biological criteria to confirm the absence of cystadenocarcinoma. Surgical treatment of these cysts is complete resection, either by a cystectomy total, or by a regulated hepatectomy adapted to the site and size of the cyst [23].

Conclusion:-

The mucinous cystadenoma of the liver is a rare pathology predominantly female, of unknown etiopathogeny, of very slow evolution, of clinical presentation ranging from a simple pain of the right hypochondrium to a cholestasis syndrome, its diagnosis is suggested by the Imaging, confirmed by pathological examination, surgical treatment must be radical in view of the risk of degeneration and recurrence

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