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**Emergency Radiology** 

# **Hepar Lobatum Carcinomatosum Revealing a Breast Neoplasm: Case Report**

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Abstract Case Report

Hepar lobatum carcinomatosum is a rare liver disease acquired during the evolution of a carcinoma metastatic to the liver, corresponds to a hepatic dysmorphia of non-cirrhotic origin associating signs of portal hypertension. We report the case of a patient who presented signs of portal hypertension without a context of chronic hepatitis, an aspect of dysmorphic liver without hepatocellular carcinoma is documented by CT imaging, suspecting a hepar lobatum carcinomatosum, from which a clinical, biological, radiological and histological diagnostic approach was instituted concluding to a breast ductal carcinoma.

**Keywords**: Liver; Liver metastases; Hepar lobatum carcinomatosum, Breast neoplasms.

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#### **Learning points**

Hepar lobatum carcinomatosum is a major non-cirrhotic acquired liver dysmorphia cirrhotic, which is always observed in metastatic livers, most often of infiltrating breast carcinomas.

#### **Abbreviations**

HLC: Hepar lobatum carcinomatosum

#### Introduction

Hepar lobatum carcinomatosum is an unusual cause of chronic liver failure, which usually presents as cirrhosis during the course of a carcinoma, most often of breast origin, metastasized to the liver, the pathogenesis of which is still poorly understood.

In this article, we report the case of a patient who presented with portal hypertension on a hepar lobatum carcinomatosum aspect revealing a breast carcinoma.

## CASE REPORT

A 40 years old female patient presented with abdominal distension that had been evolving for 3 months, with only one antecedent, a mother who had died of breast cancer, without any notion of toxic habits of alcohol or smoking, chronic hepatitis or other pathology. The clinical examination, shows that the

patient was in good general condition, not icteric, abdominal distension with hepatomegaly, and a dullness of the flanks with discrete collateral circulation.

The biological check-up showed thrombocytopenia at 80 000/mm³, normal prothrombin level, ALT/ASAT disturbed >5 times normal, normal urea and creatinine, hepatitis C and B negative. The ascites puncture was sterile with no identifiable germs, poor in protids.

Abdominal ultrasound: a dysmorphic, heterogeneous, multi-nodular liver of suspicious appearance was found, with a permeable portal trunk, associated with a large amount of ascites.

Subsequently, a CT scan was performed in order to look for an etiology explaining this picture, revealing: a dysmorphic liver with diffuse, poorly defined hypodense lesions, some of which were calcified (Fig.1), responsible for major capsular retraction (Fig 2), heterogeneously enhanced after injection, permeable TP with increased caliber (15 mm) (Fig 3), splenomegaly, and a very large peritoneal effusion (Fig 1).

In front of this aspect other investigations were restored revealing a left infiltrating breast carcinoma



Figure 1: Axial section of a CT scan showing the hepatic dysmorphia and the hepatic lesions, some of which are calcified. Note the abundance of ascites



Figure 2: Axial section of a CT scan without injection showing the important capsular retraction of the liver

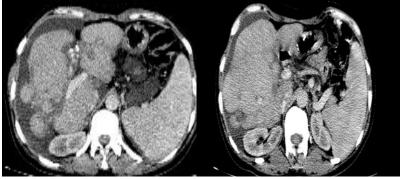


Figure 3: Axial section of an abdominal CT scan with injection showing liver dysmorphia with segment IV atrophy and segment I hypertrophy. Increased caliber TP, permeable

### **DISCUSSION**

In this observation, we retained the diagnosis of hepar lobatum on the association of a major hepatic dysmorphia of rapid onset and portal hypertension, in a clinical context suggestive of breast carcinoma metastasized to the liver.

Hepar lobatum carcinomatosus, also known as pseudocirrhosis of the liver, is a rare form of metastatic liver disease. It was first described in the setting of tertiary syphilis [1]. It is most commonly secondary to invasive ductal and lobular breast cancer [2].

Hepatic metastases from kidney, stomach, nasopharyngeal cancers have also been associated with this pathology [2], and in some rare cases, CLH may reveal the primary tumor.

For example, in a recent retrospective radiological series, Qayyum *et al.*, [3] reported, among 91 consecutive patients treated for liver metastases of breast carcinoma, a pseudo-cirrhosis appearance in 16 patients, either a prevalence prevalence of 17%.

The exact pathogenesis is not clear, at least two factors may be responsible for the formation of multifocal scars bearing cancer [4]. A desmoplastic stromal reaction upon contact with the tumor, which corresponds to an excessive production of fibrous tissue by activation of each of the cellular components of the stroma.

A vascular deficiency due to tumor infiltration, which would be responsible for a heterogeneous perfusion of the liver with atrophy of the invaded sectors at the expense of the non-tumorous liver on the one hand, and portal hypertension on the other hand.

Strengthened, this hypothesis was by sequential CT and MRI data, which allowed to relate the dysmorphia to fibrous retraction of the initially metastatic sites.

MRI can also be useful in supporting this diagnosis, showing large areas of very late enhancement suggestive of fibrosis.

The natural course of nodular liver metastases could be modified by therapeutic intervention. However, the prognosis remains poor, since the persistence of tumor residues and a survival rate that never exceeds one month were constantly reported at autopsy.

## **CONCLUSION**

The association of portal hypertension and deep liver remodeling in the context of breast carcinoma metastasized to the liver should raise the possibility of hepar lobatum carcinomatosum. MRI remains the reference examination, by demonstrating fibrous retraction of the initially metastatic sites.

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