

Title:

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Authors:

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Giant cystic hepatocarcinoma in the absence of cirrhosis

Beatriz Estébanez Ferrero¹, Martín de Jesús Rodríguez Perdomo¹, Francisco Javier Velasco Albendea², Gabriel López Ordoño¹.

¹General Surgery and Digestive Diseases Service. Hospital Universitario Torrecárdenas. Almería, Spain.

²Pathological Anatomy Service. Hospital Universitario Torrecárdenas. Almería, Spain.

Correspondence: Beatriz Estébanez Ferrero

E-mail: beatriz987654@hotmail.com

Case Report

We present the case of a 74-year-old man with a personal history of metabolic syndrome, anaemia due to chronic disorders and atrial fibrillation under treatment, who came for consultation due to unspecific discomfort in the right hypochondrium. On physical examination, a palpable abdominal mass was noticed on the right upper quadrant. Laboratory tests, tumour markers, transaminases and bilirubin were normal.

Computed tomography (Figure 1) revealed a complex cystic mass measuring 14x19x18 cm in segments V, VI, VII and VIII, with a solid component and heterogeneous appearance, calcifications inside and thick septa, with hypercaptation and early washout of the solid areas, with no macroscopic signs of cirrhosis.

A core needle biopsy was performed and the histological findings were consistent with a benign infarcted lesion.

The patient underwent surgery and a right hepatectomy was performed by means of an extended right subcostal incision.

Pathological examination (Figures 2 and 3) revealed a 21 cm tumour with the result of a moderately differentiated multilocular cystic hepatocarcinoma, in the absence of concomitant cirrhosis.

The postoperative course was favorable, and the patient was discharged.

Discussion

Cystic degeneration is one of the rare manifestations of hepatocellular carcinoma (HCC)¹. Several mechanisms have been suggested, including arterial thrombosis, inflammation, rapid tumour growth and androgen therapy¹.

The differential diagnosis between mucinous cystic neoplasms and cystic degeneration of HCC can be complex. However, it has been reported as an irregular, multilocular, hypoattenuating lesion with peripheral ring enhancement².

Recent progress in understanding the tumor immunogenicity shows a promising result in immuno-targeted therapies³.

References

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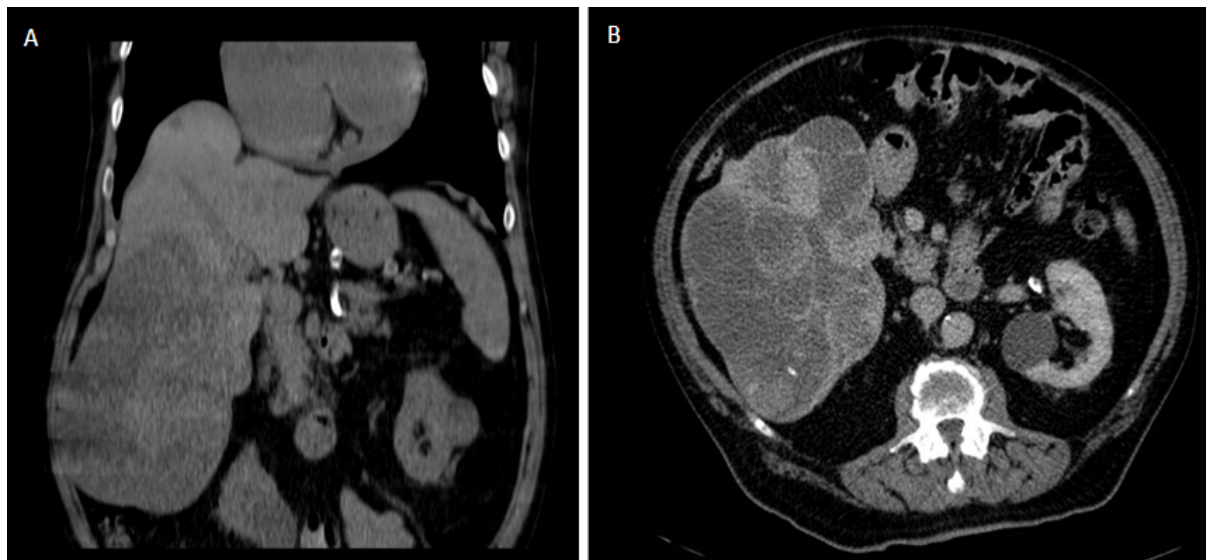


Figure 1. Abdominal CT. A. Coronal section. B. Axial section. Complex cystic mass with solid and heterogeneous component, calcifications in its interior and thick septa. Hyperenhancement and early washout of the solid areas. It occupies segments V, VI, VII and VIII, causing extrinsic compression of the gallbladder.

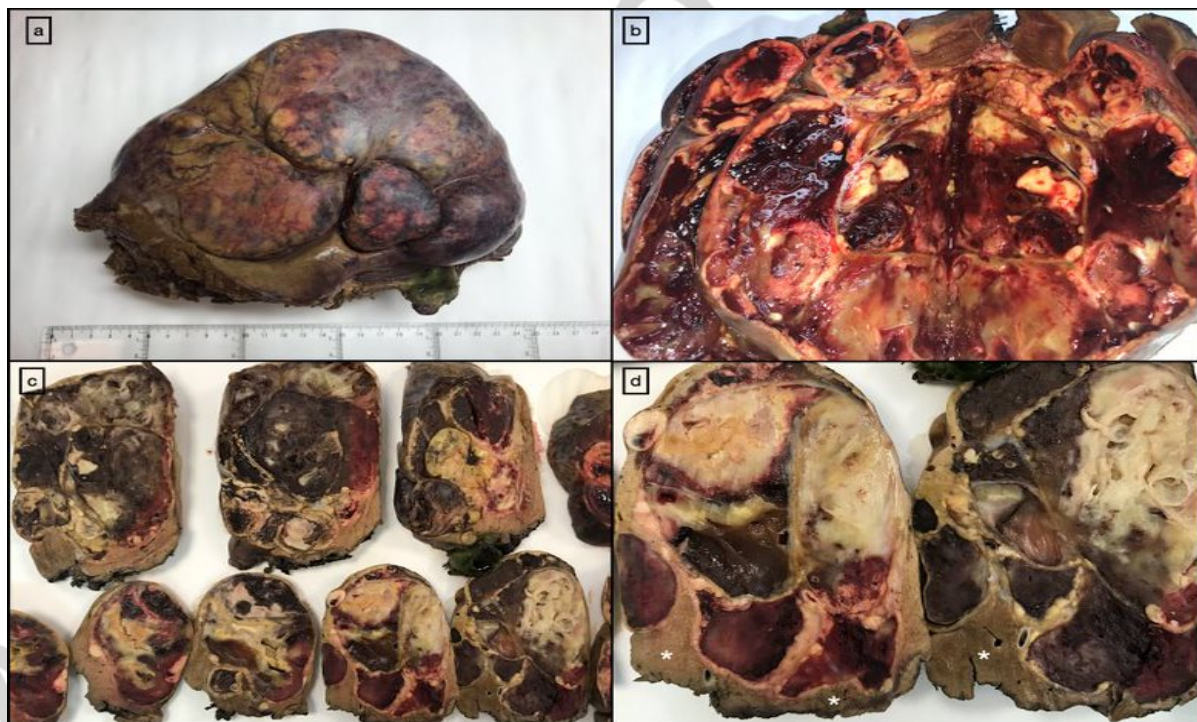


Figure 2. Gross examination. a) Partial hepatectomy specimen (right lobe of the liver) measuring 21 cm x 16,5 cm x 8 cm and weighing 1885 g that contains a multinodular tumor. The hepatic surface is intact and tense with a tan-green to pink color. b) Hemisection of the tumor prior to formalin fixation. The cut surface is heterogeneous with well-organized

hemorrhage cystic cavities. Cysts contain a gelatinous material and are surrounded by poorly defined nodular areas with a yellow color. c) Serial sections of the multilocular cystic neoplasm (after formalin fixation). d) Macroscopic detail of the tumor. Multiple fused cysts of variable size with organized hematic content and fibronecrotic tissue. See below non-tumoral liver tissue in proximity to the resection margin (asterisks).

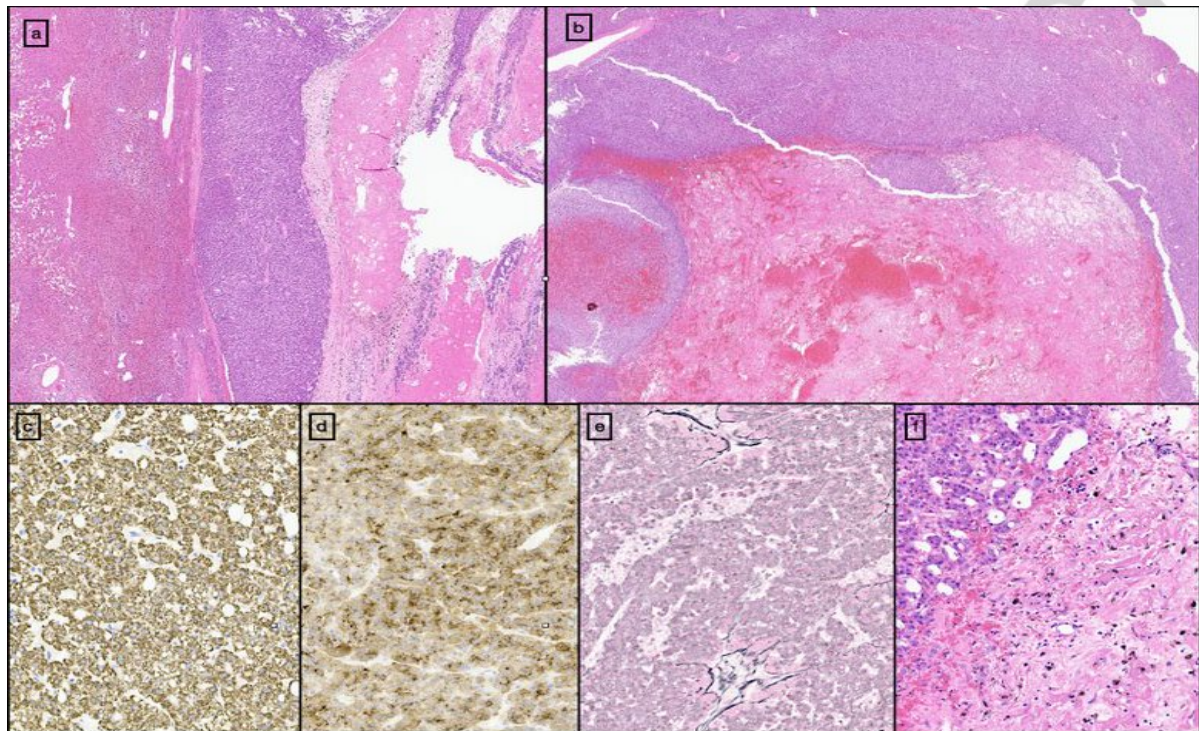


Figure 3. Microscopic examination. a) Non-tumoral liver is depicted on the left margin of the figure. Hepatocellular carcinoma corresponds to the central area of the image. A cystic space can be seen on the right margin (H&E, 10x). b) Microscopic image of the fibrinohematic content of the cyst surrounded by areas of hepatocellular carcinoma (H&E, 20x). c) Diffuse cytoplasmic granular positivity for Hep Par 1 in hepatocellular carcinoma (Hep Par 1, 20x). d) Immunostain for Glypican 3 helps to make the diagnosis of hepatocellular carcinoma. Strong cytoplasmic positivity of the tumor cells is shown (Glypican 3, 20x). e) Loss of the normal reticulin framework in hepatocellular carcinoma (Reticulin, 20x). f) Microscopic detail of the moderately-differentiated epithelial neoplasm (left upper margin) with degenerative material belonging to a cyst (H&E, 20x).