

Hepatocellular carcinoma, fibrolamellar variant in a patient with primary hypothyroidism

Carcinoma hepatocelular, variante fibrolamelar en paciente con hipotiroidismo primario

Carcinome hépatocellulaire, variante fibrolamellaire chez un patient atteint d'hypothyroïdie primaire

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Tomografía abdominal (Vista axial) del paciente

ABSTRACT

Hepatocellular carcinoma is the most common type of liver cancer. It is more common in men than in women. The fibrolamellar variant is a rare type of liver cancer that occurs in adolescents and young people with no history of liver disease. With an incidence between 1% and 5% of all hepatocarcinoma, it is characterized by the presence of thick fibrous collagen bands that surround the tumor cells. The abdominal ultrasound performed was positive, observing a solid, echogenic

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image that occupies segments IV, V, VI of the liver. The patient underwent surgery and is under treatment with chemotherapy and oncology follow-up. The images presented correspond to ultrasound and tomography of the abdomen with views: coronal, axial and sagittal in a male patient with hypothyroidism.

Keywords: hepatocellular carcinoma, fibrolamellar variant, echogenic solid mass.

RESUMEN

El carcinoma hepatocelular es el tipo más común de cáncer del hígado. Es más frecuente en los hombres que en las mujeres. La variante fibrolamelar es un tipo raro de cáncer hepático que ocurre, en adolescentes y personas jóvenes sin historia de enfermedad del hígado. Con una incidencia entre un 1% y 5% de todos los hepatocarcinomas, se caracteriza por la presencia de bandas de colágeno fibrosas gruesas que rodean las células tumorales. El ultrasonido abdominal realizado fue positivo, observándose imagen sólida, ecogénica que ocupa los segmentos IV, V, VI del hígado. El paciente fue operado y se encuentra bajo tratamiento con quimioterapia y seguimiento por oncología. Las imágenes que se presentan corresponden a ultrasonido y tomografía de abdomen con vistas: coronal, axial y sagital en un paciente masculino con hipotiroidismo.

Palabras claves: carcinoma hepatocelular, variante fibrolamelar, masa sólida ecogénica

RÉSUMÉ

Le carcinome hépatocellulaire est le type le plus courant de cancer du foie. Il est plus fréquent chez les hommes que chez les femmes. La variante fibrolamellaire est un type rare de cancer du foie qui survient chez les adolescents et les jeunes sans antécédents de maladie du foie. Avec une incidence comprise entre 1% et 5% de tous les hépatocarcinomes, il se caractérise par la présence d'épaisses bandes fibreuses de collagène qui entourent les cellules tumorales. L'échographie abdominale réalisée était positive, observant une image solide et échogène qui occupe les segments IV, V, VI du foie. Le patient a été opéré et est sous traitement avec chimiothérapie et suivi oncologique. Les images présentées correspondent à une échographie et une tomographie de l'abdomen avec des vues: coronale, axiale et sagittale chez un patient de sexe masculin souffrant d'hypothyroïdie.

Mots-clés: carcinome hépatocellulaire, variante fibrolamellaire, masse solide échogène.

IMAGE EXHIBITION

Below are classic images of a 28-year-old male patient with a history of thyroid disease (primary hypothyroidism) under medical and compensated treatment. In addition, it presents visual disturbances such as difficulty seeing distant objects and blurred vision. He was evaluated by ophthalmology with the diagnosis of mild myopia and a graduation of -1.5 diopters.

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It began with symptoms of distension and abdominal pain, as well as poor general condition. He was treated at the Tharaka County Referral Hospital Nithi, Kenya dated 02/09/2022. An abdominal ultrasound was performed, observing an echogenic mass of heterogeneous texture occupying segments IV, V, and VI of the liver with an area of central necrosis. The observed mass shows increased vascularity on Doppler ultrasound.

Tomography with an axial view of the abdomen with double contrast (oral and intravenous urography), revealed a tumor image in the right lobe of the liver. The biopsy taken from liver tissue confirmed the presence of large, polygonal neoplastic hepatocytes, with extensive eosinophilic cytoplasm and nuclear pleomorphism, and bands of fibroconnective tissue; confirming diagnosis by biopsy.

Functional and enzymatic laboratory tests were performed, by tumor marker such as alpha-fetoprotein (AFP) of 300 ng/ml; alkaline phosphatase 316U/L; aspartate aminotransferase (AST) 85U/L, alanine aminotransferase (ALT) 75U/L, with a gamma glutamyl transferase (GGT) 78U/L; normal blood cell count and creatinine.

Figures 1 and 2 show abdominal and color Doppler ultrasound images, transverse and sagittal sections of the liver, showing a well-defined echogenic mass occupying segments IV, V, VI of the right lobe of the liver with vascularity in Doppler ultrasound.



Figure 1. Abdominal ultrasound

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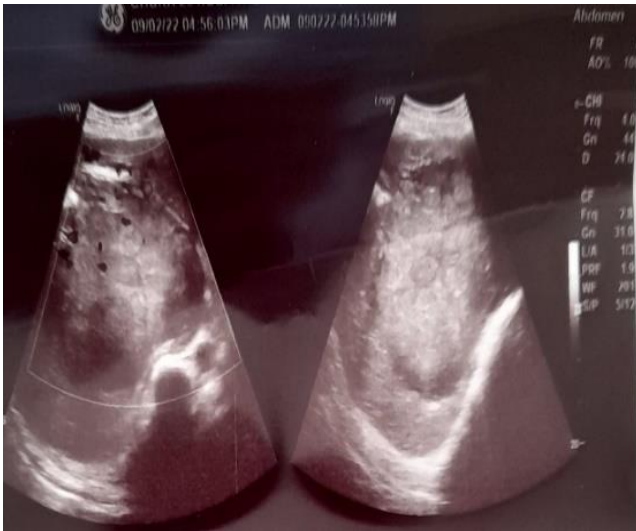


Figure 2. Doppler ultrasound



Figure 3. Contrast-enhanced abdominal tomography (oral and intravenous) - axial view

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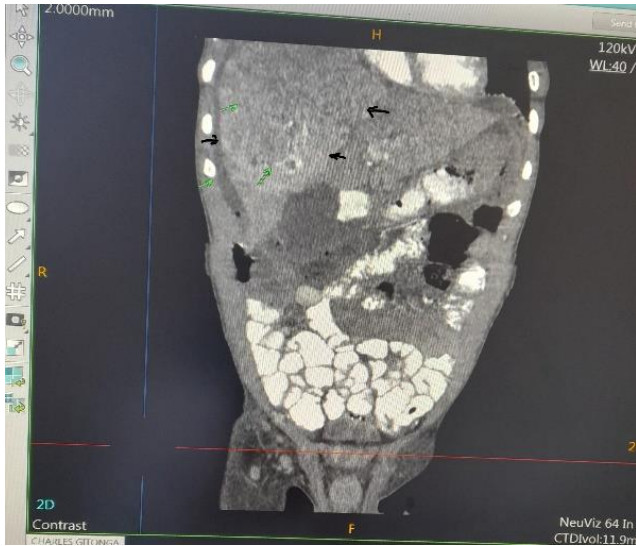


Figure 4. Coronal view of the venous phase

Figures 3 and 4 show axial and coronal tomography studies with double contrast (oral and intravenous urography), confirming the abdominal ultrasound study performed; revealing a hyperdense mass occupying segments IV, V and VI of the right lobe of the liver, with a central hypodense area associated with necrosis. This demonstrates vascular enlargement and enhancement of the contrast medium in the arterial phase, without dilatation of the bile ducts. A slight amount of ascites is observed in the abdominal cavity, secondary to peritoneal reaction and obstruction of lymphatic drainage.

FINANCING

No funding was received for the development of this study.

CONFLICTS OF INTEREST

No conflicts of interest are declared

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