

# Mediastinal mass: a rare presentation of hepatocellular carcinoma

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### Abstract

A 64 years old man, was admitted into hospital with dysphonia and a chest mass of one month duration.

The previous medical history of alcohol abuse revealed a diagnosis of cirrhosis, confirmed, by liver biopsy in 1992.

On admission, positive findings in the physical examination were a mass in the anterior chest wall continuous with the sternum, ascites and bilateral leg edema. CAT Scan of the neck and chest showed an infiltrated mass that eroded the sternum, the soft

tissues of the anterior chest wall and the anterior mediastinum.

CAT scan of the liver revealed high density areas in the parenchyma and multiple hypoechogenic nodules. Both the aspirate cytologic examination of the chest mass and hepatic biopsy showed morphological and cellular aspects diagnostic of liver cell carcinoma with a trabecular pattern.

Key words: mediastinal neoplasm, anterior mediastinum, hepatocarcinoma metastasis, liver neoplasm.

### Introduction

The most common mediastinal masses in adults are neurogenic tumors, thymomas, cysts, lymphomas and germ cell tumors, and only rarely, other etiologies.<sup>1,2</sup>

In 90% of cases they are benign and generally asymptomatic; when symptoms occur, they are due to the inclusion of adjacent structures; and 50% of these tumors are malignant.<sup>1,2</sup>

The diagnostic evaluation of mediastinal masses includes the precise location of the mass, and the obtaining of tissue for diagnosis, whether by aspiration cytology, or biopsy.<sup>1,2</sup> These were the procedures that led us to the diagnosis.

The interest of this case is related to the form of presentation and localization of the metastatic disease.

### Case Report

JTA, male, 64 years, Caucasian, a bar man, admitted in July 1995 for dysphonia and painful tumefaction in the juxtasternal region (*Fig. 1*). The patient had a history of liver cirrhosis diagnosed by hepatic biopsy in 1992. He continued to drink alcohol and did not follow the therapy regularly, and was admitted in 1993 and 1994 for decompensated liver cirrhosis.

In May 1995, he reported having observed a hard, painful tumefaction in the juxtasternal region, which progressively increased in size. In June 1995, he had onset of dysphonia. He visited the Emergency Service and was admitted. In the objective examination on entry, the following are highlighted: axillary temperature of (37.2°C), a hard mass on the anterior surface of the chest (juxtasternal region) of around 10/5 cm. Ear, nose, throat exam without alterations. Ascites and edemas of the lower limbs (+).

The complementary exams are shown in *Table 1*. The chest radiography (PA) did not show any relevant aspects.

Cytochemical exam of the ascitic fluid revealed: Total proteins 2.0 g %; LDH 122 U/l; 100 cells with 81% lymphocytes and 19% neutrophils; investigation of neoplastic cells negative; a-fetoprotein 3.6 ng/mL; CEA 0,4 ng/mL; CA 19-9 U/mL; PSA 0.1 mg/mL.

Abdominal echography – hepatomegaly with multiple hypoechogenic nodules in the right lobe. Abdominal CAT scan – poorly defined areas of parenchymatous densification and ascites. Hepatitis markers B and C - negative. Bone scintigraphy – appearance compatible with bone metastases, with

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Tumefaction of the anterior surface of the chest.

FIG. 1

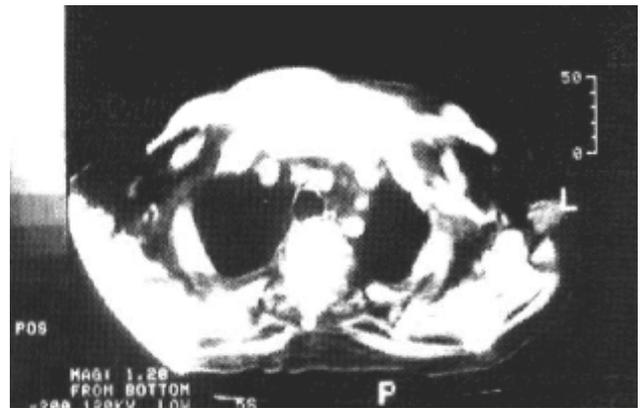
TABLE I

Hg	13.3 g/dL
HTC	40%
MGV	98 fl
MGH	33 pg/c
MGHC	33%
Leukocytes	8.100
	68% neutrophils
	25% lymphocytes
	7% monocytes
ESR	63 mm/1ST h.
Prothrombin Time	65%
Glycaemia	150 mg/dL
Urea	27 mg/dL
Creatinine	0.9 mg/dL
Uric acid	10.2 mg/dL
Total bilirubin	1.2 mg/dL
GOT	91 U/L
GPT	13 U/L
Alkaline phosphatase	106 U/L
gGT	94 U/L
LDH	94 U/L
Na <sup>+</sup>	138 mEq/l
K <sup>+</sup>	4.1 mEq/l
Mg <sup>++</sup>	1.3 mEq/l
Total proteins	7.2 g/dL
Albumin	2.0 g/dL



Bone metastases – ischium acetabulum, right greater trochanter and manubrium.

FIG. 2



CAT scan of the neck and chest – infiltrative lesion of the thoracic wall and anterior mediastinum.

FIG. 3

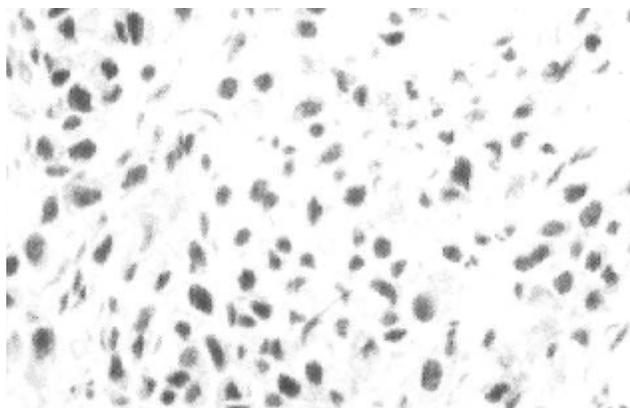
lithic prevalence in the ischium, acetabulum and manubrium region (Fig. 2). CAT scan of the neck and chest – infiltrative lesion with destruction of the upper portion of the sternum, from the 1st ribs and soft tissues of the anterior wall of the chest and anterior mediastinum of 7.5/6cm. (Fig. 3). Mass aspiration cytology – metastasis of hepatocellular carcinoma (Fig. 4). Liver biopsy – hepatocellular carcinoma with trabecular pattern (Fig. 5).

During the hospitalization, there was a gradual worsening of the state of patient's consciousness and general state. He died in August 1995, without receiving treatment for the underlying disease.



Large cell pleomorphism with bizarre mitotic figures and giant tumor cells. The nucleus and nucleolus are prevalent and the scant, basophilic cytoplasm.

FIG. 4



Hepatic biopsy – hyperchromatic cells and prominent nucleoli, basophilic cytoplasm. Occasionally, mitotic figures are observed with hepatocellular carcinoma of the trabecular wall.

FIG. 5

### Comments

The patient had symptoms for liver cirrhosis for many years. This is the most important predisposing factor for the development of hepatocellular carcinoma,<sup>3</sup> as occurred in this case. It is highlighted that the patient presented normal  $\alpha$ -fetoprotein values, which only occurs in 20% of cases.<sup>3</sup> The remaining complementary exams also presented no characteristics suggestive of the presence of hepatocarcinoma. This case was, therefore, a rare form of presentation of hepatocellular carcinoma<sup>4,5</sup> — a painful mass on the anterior surface

of the chest – that led to the patient coming to the hospital, and the conclusion that it was a metastasis.

In this disease, the metastases at a distance are rare,<sup>4,5,6,7</sup> nearly always asymptomatic, and the bone is one of several possible locations. ■

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