

# Unusual case of chronic heart failure acutisation

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**Introduction:** Chronic heart failure (CHF) is a result of many different causes, but rarely occurs due to intraatrial masses. Most commonly seen are thrombi related to atrial fibrillation (AF), valvular vegetations and cardiac tumors (mixomas), but the diagnosis of extensive mass reaching from the inferior vena cava (IVC) to the right atrium of the heart is an extreme rare finding. The literature reported tumor spread in 1-4% cases of hepatocellular carcinoma (HCC). We report a similar case causing the acutisation of CHF.

**Case report:** A 83-year-old man reported to the emergency department (ER) for several times in four months due to progressive dyspnea and leg swelling. His medical history included alcoholic liver cirrhosis with hepatocellular carcinoma (HCC) treated by chemoembolisation four years ago, CHF, valvular heart disease, chronic renal disease 3b, AF. He was treated with warfarin therapy for a few months due to the patient noncompliance and also with beta-blocker, digitalis and loop diuretic, whose dose was repeatedly increased after each subsequent visit to the ER. MSCT pulmonary angiography excluded pulmonary embolism. Abdominal ultrasound showed compensated liver cirrhosis with solitary

HCC. At the time of our examination he had signs of heart failure along with liver decompensation. The abdominal ultrasound noted a mass extending from inferior hepatic vein through IVC all the way to the right atrium which was sized 2.7 cm. Given the extent of malignant disease and the complications, the patient was treated with low molecular weight heparin with gradual impairment of heart and kidney parameters. He died shortly after the admission of bleeding from the upper gastrointestinal tract.

**Discussion:** The literature suggests that right atrial thrombus may not cause any symptoms, but can sometimes lead to shock from ball valve obstruction of the tricuspid valve, right heart failure, pulmonary emboli and sudden death. This patient had many comorbidities that contribute to the thrombus development and also to heart failure, but HCC is known for its ability to progress through veins. Very high mortality rates are observed for advanced HCC with IVC and intraatrial tumor thrombus extension. Mean survival time is around three months. Pharmacotherapeutic and surgical treatments is equally poor.

**Conclusion:** The patients with progressive heart failure and liver cirrhosis with HCC should be suspected of having masses of IVC or right atrium that is easily detected by echocardiography or abdominal ultrasound. In our case it was probably spreading of tumor itself.

**KEYWORDS:** heart failure, hepatocellular carcinoma, intraatrial mass.

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## Literature

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