A CLINICAL CASE OF DIFFERENTIAL DIAGNOSIS OF BUDD-CHIARY SYNDROME AND PORTAL VEIN THROMBOSIS ON THE BACKGROUND OF MULTIPLE PRIMARY TUMORS IN THE PRACTICE OF A CARDIOLOGIST

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Background

The article focuses on the presentation of a clinical case of a patient with multiple primary tumors complicated by portal vein thrombosis in view of differential diagnosis with Budd-Chiari syndrome (BCS).

Objective

The main objective of the clinical case is to illustrate the diagnostic search aimed at determining the etiology of edematous syndrome if such a factor as a rare pathology of the liver vessels known as SBC is not taken into consideration

Methods and materials:

As part of the diagnostic search, a number of diagnostic research methods were used to establish the etiology of the pathological condition: X-ray (CXR). Echocardiography, Abdomen ultrasound scanning, Magnetic resonance imaging (MRI) Esophagogastroduodenoscopy, Histological research, Thoracic and abdomen MSCT.

Results

Patient V., aged 74, was presented with complaints concerning of shortness of breath on exertion, hypostasis of the lower limbs up to the level of the inguinal folds, with tense ascites and was diagnosed with decompensated heart failure . X-ray (CXR): second-degree pulmonary vascular congestion, first-degree pulmonary arterial hypertension, bilateral pleural effusions; echocardiography: left ventricular ejection fraction (LVEF) is 60%, left ventricular regional myocardial contractility dysfunction is not found, left ventricular diastolic dysfunction, right cardiac chambers are not dilated, the inferior vena cava (IVC) dimensions are not determined, a narrow lumen is visible, the inferior vena cava collapse cannot be measured; abdomen ultrasound scanning: ascite (Fig. 1), portal hypertension, hepatic veins narrowing with a significant decrease in pulsatility along them (Fig. 2), the inferior vena cava (IVC) narrowing (Fig. 3), signs of collaterals at the mouth of the hepatic veins (Fig. 4), which may be indicative of Budd-Chiari syndrome development.

Taking into consideration the obtained results, the diagnostic search was aimed at identifying the etiology of edematous syndrome, which is probably not connected with CHF decompensation (the level of natriuretic brain peptide (BNP) in the blood is 58.8 pg / ml). Magnetic resonance imaging (MRI) of the abdomen and pelvis was performed: thrombosis of the left branch of the portal vein cannot be excluded (Fig. 5).

Thus, the etiology of edematous syndrome is associated with thrombosis of the left branch of the portal vein (D-dimer >4.00 μg/ml (N: 0.00 - 0.50)). In order to clarify the genesis of this process, the patient was underwented a cancer screening. Given hemoglobin level decrease, moderate anemia, a positive fecal test for occult blood results, esophagogastroduodenoscopy was performed: diffuse stomach lesions with signs of an oncological process (Fig. 6) were found, a histological picture of poorly differentiated adenocarcinoma with the signet-ring cell type was revealed.

The presence of concomitant oncological pathology was the background for the increased thrombus formation with the subsequent obstruction of the left branch of the portal vein and portal hypertension development. Thoracic and abdomen MSCT was completed: CT picture displayed a tumor in the right breast with the axillary nodes metastases on both sides and in bones, stomach cancer, peritoneal carcinomatosis.

Due to the anamnesis data (fibrocystic mastopathy in the right breast detected back in 1988), metastatic spreading of the primary foci of tumor formations, the patient harbours multiple primary tumours: gastric cancer (stage IV) with T3N1M1, right-sided breast cancer (stage IV) with T3N2M1, bone metastases complicated by thrombosis of the left branch of the portal vein.

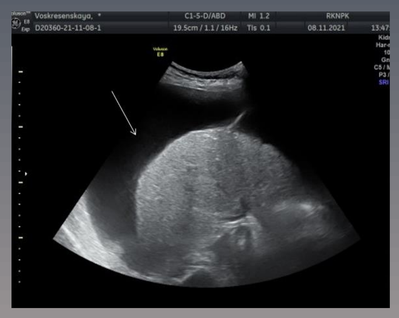

Figure №1 Ascite

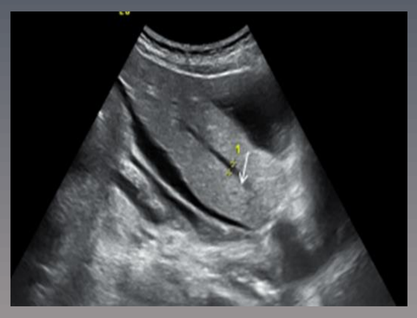

Figure № 2
Narrowing of the hepatic veins - diameter 4-5 mm

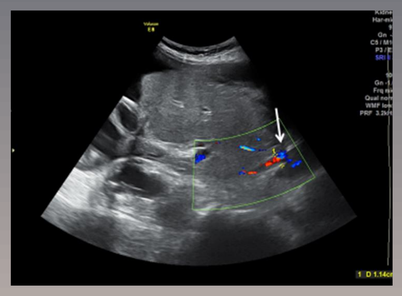

Figure № 3
The inferior vena cava (IVC) narrowing

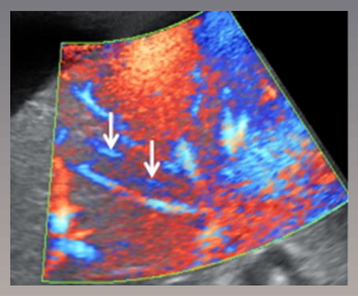

Figure №4
Intrahepatic collaterals at the mouth of the hepatic veins

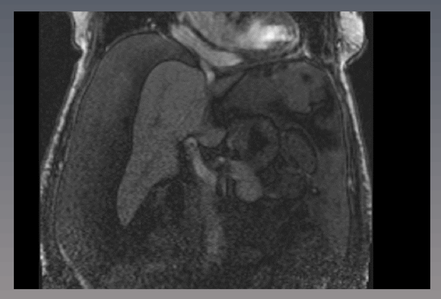

Figure № 5
Thrombosis of the left branch of the portal vein

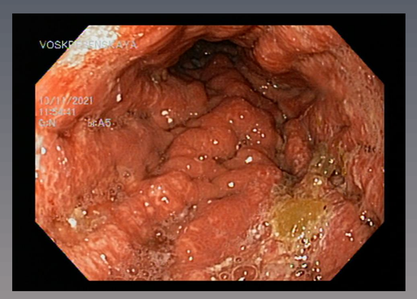

Figure №6
Endoscopic picture - diffuse oncological process of the stomach with multiple erosions

Conclusion

The provided clinical case illustrates the diagnostic search aimed at identifying the etiology of edematous syndrome, differential diagnosis of the liver vessels thrombosis and BCS, as well as the role of the oncological process in the liver vessels pathology.

Taking into account the information provided above, in the presented clinical case, thrombosis of the left branch of the portal vein is not seen as an indication of Budd-Chiari syndrome, but as a component of a far advanced oncological process.