



The First Finding of Cirrhosis: Hepatic Hydrothorax Caused by Absence of Ascites

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Abstract

Hepatic hydrothorax is a pleural effusion occurs in cirrhotic patients without any cardiac and pulmonary disease. Generally it shows up in acidic cases. The most of the cases show up on the right side whereas it rarely shows up on the left and on both sides. Its treatments are salt restriction, diuretic medication and therapeutic thoracentesis. In resistant cases pleurodesis, videothoracoscopic repair of defects, transjugular intrahepatic portosystemic shunt (TIPS) as well as liver transplantation in end stage hepatic cirrhosis patients can be done. In this article, we presented a 54 year old female case with hepatic cirrhosis and hydrothorax without ascites, admitting to clinic because of dyspnea.

Keywords: Cirrhosis, hepatic hydrothorax, ascite

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Introduction

Isolated hepatic hydrothorax is a pleural effusion occurs in cirrhotic patients without any cardiac and pulmonary disease. It is defined as accumulation of at least 500 ml water in pleural space [1]. In cirrhotic patients pleural fluid usually shows up in ascitic facts. However, it was also reported that it could rarely develop in non-ascites cases [2]. In this article we want to present our 54 year old female patient who was diagnosed as hepatopathy and liver transplantation when she was being treated due to pleural effusion.

Case

54 year old female patient has been using lamivudine tablets due to chronic hepatitis B treatment for 3 years. She admitted to chest diseases service three months of ago with a complaint of dyspnea and required inpatient treatment because of hydrothorax on the right side. As a treatment she was applied thoracentesis and was placed chest drainage tube however she got no change. In her laboratory dates were wbc: 7400/mm³, plt: 98000/mm³, INR: 2.7, total bilirubin; 3.2 mg/dl, albumin; 2.2 g/dl, creatinin: 0.64, haemoglobin 9.7, haematocrit: 28.6, thrombocyte: 101thousand, Hbsag: Positive, anti Hbs: Negative, anti HCV: Negative, hbv DNA: 15000 copy. In taken Pleural fluid tests in the presence of albumin: 0.7g/dl, LDH: 58, Pleural fluid / serum protein ratio below of 0.5 and pleural fluid / serum LDH ratio was below 0.6 were considered to be made so transudate. In taken chest X-ray (Figure 1) and computed tomography imaging liver parenchyma and pleural effusion (Figure 2) were obtained. In her gastroscopy where she was consulted in our gastroenterology service, there existed portal gastropathy so compansated chronic liver disease was also thought on her hepatitis b ground, diuretics and albumin treatment was given as a reduction in complaints. The patient with Child-Pugh score 11 and model of end stage liver disease (MELD) score 17, was discharged from hospital by being added to candidate list for transplantation.

Discussion

Isolated hepatic hydrothorax is rare and it can lead to confusion in diagnosis if liver disease of patient was not known. It was found 67-85% on the right, 12-17% on the left and 2-17% on the both sides of the facts [3,4]. It was found in 4-6% of hydrothorax cirrhotic patients, in 1-10% of decompansated cirrhotics [5]. There is no relationship between etiology of liver

disease and with the development of hydrothorax however it is necessary for portal hypertension to be found. The diagnosis is done by exclusion of cardiopulmonary diseases, the presence of transudate characterised pleural fluid and showing of diaphragmatic defects if possible. In our case there was the presence of transudate characterised pleural fluid despite the lackness of ascites in chronic liver parenchyma due to hepatitis B. Diagnostic thoracentesis should be done in all facts having pleural fluid; the properties of pleural fluid as it is in cirrhotic ascites, are in transudate characteristics. Because of similar physiopathologic properties the treatment of hepatic hydrothorax is the same with ascit treatment. In its treatment the aim is to prevent pulmonary complications and cure symptoms by salt restriction, diuretic medication and therapeutic thoracentesis. In resistant cases TIPS process can be thought until pleurodesis, videothoracoscopic repair of defects as well as liver transplantation is done [6]. Although TIPS process provides symptomatic recovery, it does not have any positive contribution to prognosis of liver cirrhosis. But in situations when medical preventions are not effective, since the patients are end stage liver patients, liver transplantation will be a suitable choice. As a result, despite ascites is a frequently seen finding in liver cirrhosis, rarely the first finding of cirrhosis can be hydrothorax. That is why, in differential diagnosis of hydrothorax cases which their etiology cannot be determined, liver cirrhosis must be taken into consideration.

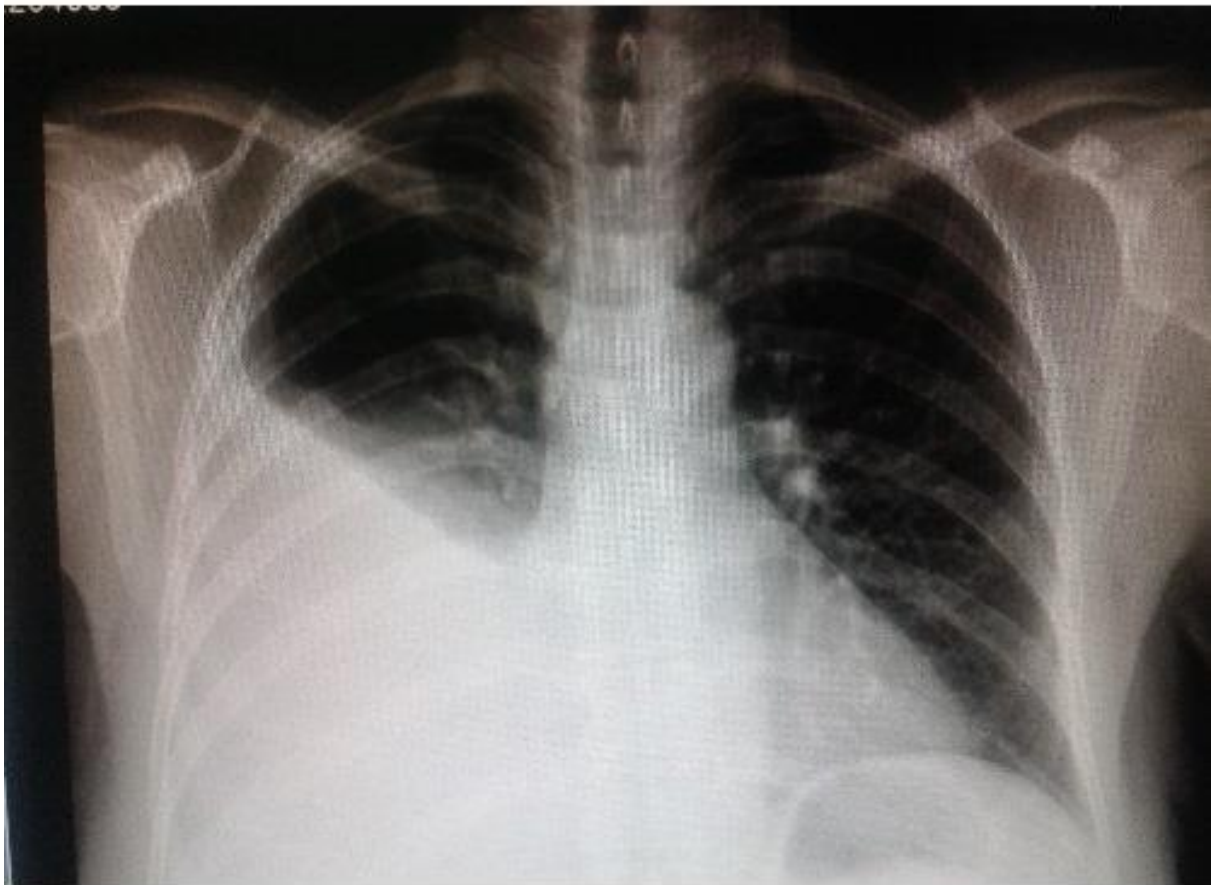


Figure 1. Imaging pleural effusion in chest X-ray

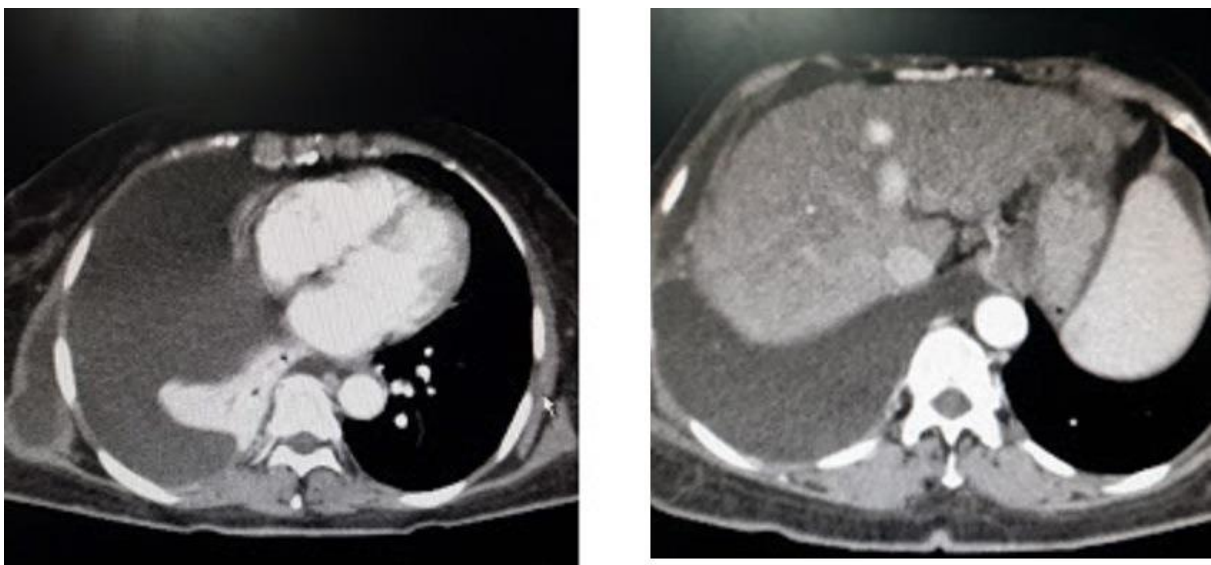


Figure2. Computed tomography imaging liver parenchyma and pleural effusion

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