

Isolated Left sided hydrothorax in a newly diagnosed Hepatocellular carcinoma - A case report

Comment [CHP1]: Isolated left-sided hydrothorax in a newly diagnosed hepatocellular carcinoma - A case report

Absract:

Usually hepatic hydrothorax is a common presentation noticed with Hepatocellular carcinoma but we present a case report with left sided hydrothorax which is a rare association with Hepatocellular carcinoma.

Comment [CHP2]: hepatocellular

Comment [CHP3]: this tumor

Keywords

Hepatocellular carcinoma, left hydrothorax, incidental finding, rare presentation

Introduction

Hepatocellular carcinoma (HCC) is a primary malignancy of the liver, that occurs predominantly in patients with underlying chronic liver disease and cirrhosis mainly caused by hepatitis B and C.. However, up to 25% of patients have no history of cirrhosis or risk factors for it.

Hydrothorax is a type of pleural effusion in which transudate accumulates in the pleural cavity. This condition is most likely to develop secondary to congestive heart failure, following an increase in hydrostatic pressure within the lungs. More rarely, hydrothorax can develop in 10% of patients with ascites which is called hepatic hydrothorax.

There's an association of Hepato-hydrothorax with HCC secondary to its anatomical position and pathology. But an isolated left sided hydrothorax with HCC is a rare presentation.

Comment [CHP4]: There is

Comment [CHP5]: hepato-hydrothorax

Comment [CHP6]: Nevertheless

Case Report

73 years old female, known case of HCV (untreated) presented with the complaints of decreased oral intake, generalised weakness and undocumented weight loss from fifteen days. Upon arrival she was vitally and hemodynamically stable. On examination her liver was palpable with the span of 19cm, firm, irregular borders, no bruit with no other visceromegaly.

Comment [CHP7]: Hepatitis C virus

Her baseline and relevant Investigations were sent. Chest xray reported isolated Left sided pleural effusion - for which diagnostic and therapeutic pleural tap was done.

Comment [CHP8]: and

Comment [CHP9]: This not clear. The patient was seen in outside hospital/institution?. Please clarify

Comment [CHP10]: left-sided

Ultrasound abdomen was done which reported a lesion in right lobe of liver - suspicion of Hepatocellular carcinoma along with moderate ascites.

Comment [CHP11]: Change for a comma (,)

Pleural tap was done - 500ml effusion was drained; as per light's criteria the effusion was transudative in nature.

Comment [CHP12]: Abdominal ultrasound was performed which reported a lesion in right lobe of the liver highly suspicious of hepatocellular carcinoma along with moderate ascites.

Comment [CHP13]: and

Comment [CHP14]: Light's

She was Child pugh's class B. Her tumor marker alpha feto protein was significantly raised > 6000.

HRCT confirmed the status of Hepatocellular carcinoma.

Comment [CHP15]: What does HRCT mean?, High Resolution Ct of the chest?. Explain the meaning of the acronym and what are the findings confirming HCC. If necessary please add figures of the study

Discussion

Hepatic hydrothorax is primarily a pleural effusion that appears in a patient presenting commonly with cirrhosis and portal hypertension. Though the exact mechanism of hepatic hydrothorax is unknown, it is likely understood to be an outcome of raised abdominal and negative pressure which causes diaphragmatic rupture and creates an unmediated route of ascitic fluid into the pleural cavity. Hepatic hydrothorax is commonly associated with HCC which is one of the typical forms of liver cancer.

Comment [CHP16]: Although the exact mechanisms of hepatic hydrothorax are unknown, the most widely accepted theory is the increasing abdominal pressure which causes diaphragmatic rupture and creates an unmediated route of ascitic fluid into the pleural cavity. Lv Y et al. Annals of Hepatology, 2018;17(1):33-46

There has been clear evidence and literature on HCC as a cause for right-sided hydrothorax but hardly any on the left-sided except a few in which one study from the USA appears to include patients suffering from hepatic hydrothorax due to cirrhosis. 77% of the patients had right-sided effusion while only 17% had left-sided effusion.¹

Comment [CHP17]: Delete
It should say: "...one study from USA ..."

One other study from Japan shows liver cirrhosis and HCC diagnosed from left-sided pleural effusion which was not clearly explained due to previously described cases having been reported as laterality of the right side.²

Comment [CHP18]: This paragraph is not clear. Please clarify what you mean. A possible paragraph could be: Another study from Japan shows liver cirrhosis and HCC diagnosed from left-sided pleural effusion that was not clearly explained since the cases previously described were reported as right-sided laterality.

We are demonstrating one such rare case of a patient who has HCC associated with left-sided pleural effusion. A 73 years old female patient with untreated HCV complains of weight loss, reduced appetite, and generalized weakness for the past 15 days.

Comment [CHP19]: a

Conclusion

It is must to keep in mind that even an isolated left sided hydrothorax can present with Hepatocellular carcinoma. In such a presentation rule out all possible causes of left hydrothorax.

Comment [CHP20]: It should be kept in mind that even an isolated left hydrothorax can present with hepatocellular carcinoma. In such a presentation, all possible causes of left hydrothorax have to be ruled out.

References:

1. Badillo R, Rockey DC. Hepatic hydrothorax Clinical Features, Management, and Outcomes in 77 Patients and Review of the Literature. 2014; 93(3): 135-142.

Comment [CHP21]: Incomplete. The name of the journal is missed

2. Ito K, Hachisu Y, Shibasaki M, Ezawa K, Iwashita H, Jingu A, Arai H, Horie T, and Takise A. Liver Cirrhosis and Hepatocellular Carcinoma Diagnosed From Chylothorax: A Case Report. 2021; 11(3): 582-586.
3. Cardenas A, Kelleher T, Shopra S. Heptic Hydrothorax. Aliment Pharmacol Ther2004;2013:271–9 [PubMed] [Google Scholar]
4. Runyon B. Management of adult patients with ascites due to cirrhosis. Hepatology 2004;2013:841–56 [PubMed] [Google Scholar]
5. Gordan FD, Anastopoulos HT, Crenshaw W, et al. The suscessful treatment of symptomatic, refractory hepatic hydrothorax with transjugular intrahepatic portosystemic shunt. Hepatology1997;2013:1366–9 [PubMed] [Google Scholar]
6. 12. Siegerstetter V, Deibert P, Ochs A, et al. Treatment of refractory hepatic hydrothorax with transjugular intrahepatic portosystemic shunt: long term results in 40 patients. Eur J Gastroenterol Hepatol 2001;2013:529–34 [PubMed] [Google Scholar]

Comment [CHP22]: Incomplete. The name of the journal is missed

Comment [CHP23]: Delete

Comment [CHP24]: Delete

Comment [CHP25]: Delete

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Comment [CHP27]: Delete

Figure 1 : Chest X-Ray

Comment [CHP28]: The quality of the chest x-ray is very poor. Please improve the quality of film or change for another picture. Please add a figure legend

