



Left Sided Hydropneumothorax As An Initial Manifestation Of Ca Stomach In A Young Male: Case Report

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Abstract

We present a case report of a 30 year old male patient who had a history of chest pain and breathlessness on exertion for 4 months. He had consulted multiple hospitals for the same his clinical findings and chest x-ray both confirmed left-sided pleural effusion and he was further evaluated for the same and pleural fluid drainage and examination was performed .fluid analysis was exudative in nature with no malignant cells and was lymphocyte-predominant. In view of this empirically patient was also started on anti-tubercular treatment. In spite of all measures, pleural effusion remained persistent and non-resolving. The patient also developed complaints of Malena and difficulty in swallowing during this course of one month. Difficulty in swallowing was progressive and frequency of Malena also increased. On endoscopy an ulceroproliferative mass was found around lesser curvature towards the gastroesophageal junction on further evaluation carcinoma stomach was confirmed on histopathology.

Malignant hydropneumothorax as a presenting feature of carcinoma stomach is a very rare initial manifestation and the presentation of ca stomach in a patient aged 30 year is also a very rare finding. Non-resolving pleural effusion

should always elicit doubts to evaluate gastrointestinal system to rule out hidden malignancy which sometimes manifests late.

Keywords: Hydropneumothorax, pleural effusion, Malena, dysphagia, ulceroproliferative lesion, ca stomach

Introduction

A number of primary ca stomach are often found by endoscopy or radiological examination. The detection of these tumors is mainly based on an active complaint of certain typical digestive symptoms, including abdominal pain, bright red blood in the stool and weight loss. However, tumors occasionally exhibit atypical presentations with a variety of symptoms or signs at a distance from the digestive system). Chest pain and pleural effusion are particularly uncommon presentations of digestive malignancies that can be easily ignored in the Outpatient Department compared with other clinical presentations. A refractory malignant pleural effusion presenting as a primary symptom of ca stomach is rarely reported (<0.9% incidence according to literature)

The pleural effusion is usually caused by a disturbance of the normal Starling forces regulating reabsorption of fluid in the pleural space, secondary to obstruction of

mediastinal lymph nodes draining the parietal pleura. Tumors that metastasize frequently to these nodes
Cancer is the second leading cause of exudative pleural effusion. Although most patients with a malignant effusion have a known history of cancer, a positive effusion may be the first sign of an unsuspected malignancy. Cytologic examination of a serous effusion may offer the possibility of an early and accurate diagnosis by using a minimal intervention. Lung, breast, ovarian, and gastrointestinal cancers are most likely to cause malignant effusion. Although spontaneous pneumothorax and hydropneumothorax are seen very rarely in advanced metastasis as in this case report.

Case report

A 30 year old male presented with complaints of breathlessness on exertion and generalised weakness since four months. Breathlessness was gradually progressive from exertion to ordinary activity. Following generalised weakness patient developed complaints of giddiness on and off after a month span. Patient got evaluated for the same at nearby local hospital and got treated as anemia. Gradually he developed chest pain which was unilateral and was relieved on lying down on the same side. ,the onset of this complaint was one month later to the initial symptoms. Patient got evaluated in outside hospital for this and was diagnosed with left sided pleural effusion under evaluation; which was further on fluid drainage was labelled as exudative serous in nature and lymphocytic predominant. Patient was empirically started on anti-tubercular treatment (ATT) outside for one month .but on repeated examination the fusion was non resolving. Patient presented to our hospital with dysphagia .which started one month ago and also admitted to be having malena on and off since four months and the frequency of these complaints had increased in the past one month. Patient also gave history of significant weight loss in last four months with persistence of initial symptoms. No

history of fever, night sweats, hematemesis, abdominal pain, loss of consciousness, palpitations. No significant past or family history. No addictions or habit.

On examination: pulse rate: 80 bpm, BP: 110/70 mm hg Afebrile, pallor ++, clubbing +, no lymphadenopathy.

Respiratory system: tracheal deviation to the right, air entry reduced bilaterally (more on left); CVS -s1s2 +; per abdomen: diffuse tenderness present.

Investigations

Hb -7.9, red cell count-2.7 million/cmm, Platelet- 3.81, TLC: 7800, N-83, L-11, E-6 b-0, retic count -0.8%, PCV-22.8, ESR-40. Peripheral smear: microcytic hypochromic anemia. RBS-163, urine routine and microscopy: NAD, urea- 24, creatinine- 1.1, TSH- 3.8, free t3- 2.36, free t4-1.47. Total bilirubin -0.4 direct- 0.2, total protein 5.6, sr. albumin 3.1, sgot -30, SGOT- 16, alkaline phosphatase -213, Sr. electrolytes normal, pleural fluid sugar: 83, Proteins: 3.5: ada:19.2:ldh :109

Left pleural fluid analysis: colour: yellow, appearance: opalescent; volume 02ml; nucleated cell count 600 cells/cmm; cell type: lymphocyte-85%, neutrophils-05%, mesothelial cells-10%, wet preparation: good number of lymphocytes, few neutrophils, and mesothelial cells.

Usg abdomen: left moderate effusion, right mild effusion, and mild ascites:

Ct scan thorax: left sided moderate to severe hydro pneumothorax with collapse of lower and lingular lobes. Right sided mild pleural effusion. Mild shift of mediastinum to right side. Enhancing serpiginous structures in pretracheal, subcarinal, and along the walls of lower oesophagus and GE junction -collaterals ++

Endoscopy: ulcero-proliferative lesion noted in lesser curvature near gastro oesophageal junction.

Histology: micro: pieces of gastric mucosa with malignant neoplasm consisting of infiltrating signet ring cell carcinoma.

Progression of case during hospital stay

Patient was admitted on 8/7/2016, during the hospital stay there was progression of dyspnoea and giddiness. Due to pleural fluid analysis of lymphocyte predominance a probable diagnosis with Koch's was continued but there was no evidence of the same in x-ray or CT thorax. Hence ATT was discontinued. For his complaints of malena and dysphagia he was evaluated with endoscopy which showed ulceroproliferative mass with histological confirmation of malignancy and was managed with subtotal gastrectomy further followed by chemotherapy

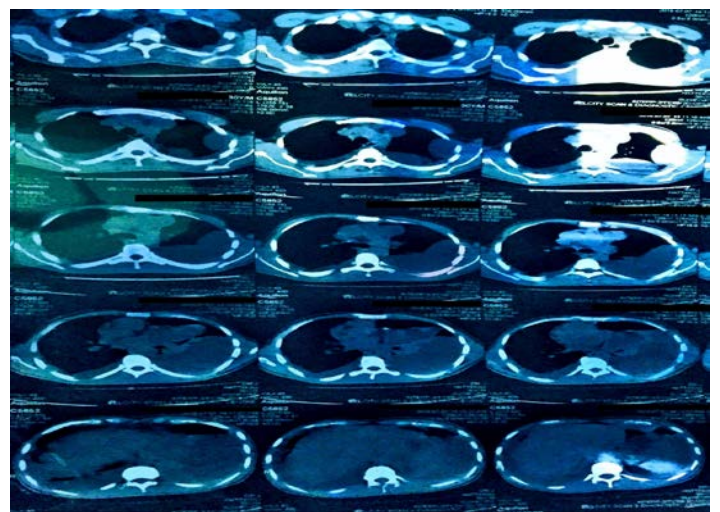
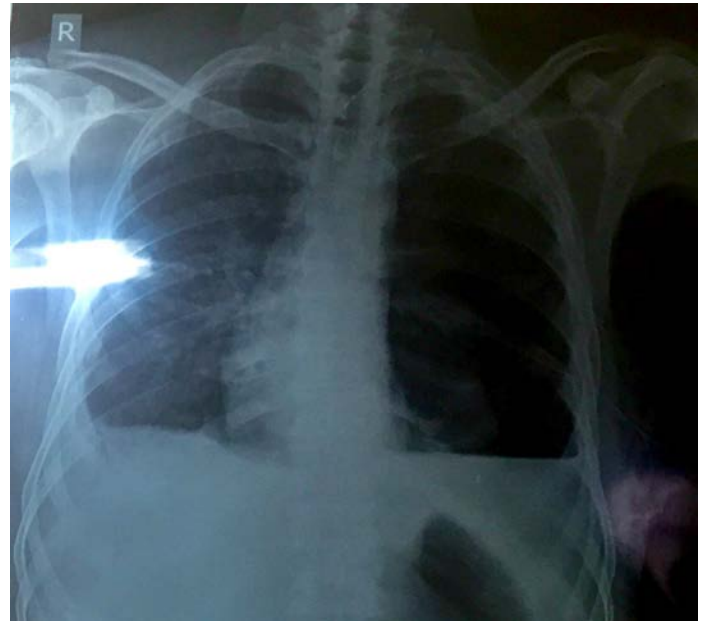
Case Discussion

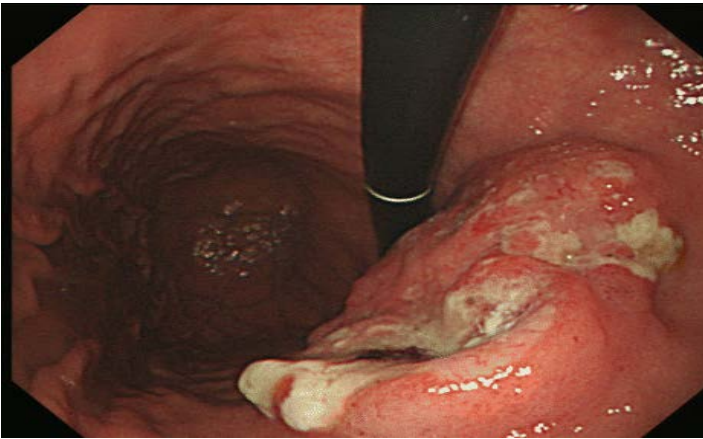
After pneumonia, cancer involving the pleura is the leading cause of exudative pleural effusion. Cytological examination of pleural effusions is an important initial step in management of malignant effusions. The new onset of pleural effusion may herald the presence of a previously undiagnosed malignancy or, more typically, complicate the course of a known tumour. Malignant pleural effusions can lead to an initial diagnosis of cancer in patients. According to literature, pleural effusion was the first symptom of cancer in 41% of most of the patients with malignant pleural effusion; out of which lung cancer in men (42%) and ovarian cancer in women (27%) were most common. Although spontaneous pneumothorax and hydropneumothorax are seen very rarely in advanced metastasis as in this case report.

Histologically, diffuse type adenocarcinoma accounts for 33 to 40% of the cases of gastric carcinoma, the intestinal type varies from 22 to 53 % and pylorocardiac gland cell type, 28%. Recently, the incidence of signet ring cell in gastric carcinoma biopsy and resection has risen sharply. Signet Ring Cell carcinoma (SRC) has been characterized by cells containing a sufficient intracytoplasmic volume of mucin to compress the nucleus against the periphery of the cell, and by its potential to diffusely infiltrate the stomach wall and to cause a marked scirrhous reaction. SRC has

been known with its poor prognosis related with larger tumor size, more lymph node metastasis, deeper invasion, and more Borrmann type IV lesions than other histological subtypes

Moreover, the average age of patients with gastric cancer at diagnosis is approximately 60 years; however, it is fairly uncommon to notice that about 1–3% of gastric cancer cases occur in patients < 30 years of age. Several reports have suggested that younger patients are often diagnosed with advanced stages and it has been observed that very young patients carry much worse prognosis than their elderly counterparts.





8. Carcinosarcoma (pure endocrine cell carcinoma with sarcoma components) of the stomach. *Pathol Int.* 2003 Aug;53(8):552-6.

References

1. Brander WL, Needham PRG, Morgan AD. Indolent mucoid carcinoma of stomach. *J Clin Path.* 1974;27:536–541. [PMC free article] [PubMed]
2. Straus R, Heschel S, Fortman DJ. Primary adenosquamous carcinoma of the stomach; a case report and review. *Cancer.* 1969;24:985–995. [PubMed]
3. Brenner H, Kloor M, Pox CP. Colorectal cancer. *Lancet.* 2014;383:1490–1502. doi: 10.1016/S0140-6736(13)61649-9. [PubMed] [Cross Ref]
4. Bhargava R, Winer-Muram HT, Kauffman WM, Jennings SG, Pratt CB. Chest radiographic features of thoracic metastatic disease in adolescents with colon cancer. *Pediatr Radiol.* 1994;24:491–493. doi: 10.1007/BF02015008. [PubMed] [Cross Ref]
5. Awasthi A, Gupta N, Srinivasan R, Nijhawan R, Rajwanshi A. Cytopathologic spectrum of unusual malignant pleural effusions at a tertiary care centre in North India. *Cytopathol.* 2007;18:28–32. [PubMed]
6. Pereira TC, Saad RS, Liu Y, Silverman JF. The diagnosis of malignancy in effusion cytology: A pattern recognition approach. *Adv Anat Pathol.* 2006;13:174–84
7. A case of two primary gastric malignancies: adenocarcinoma and squamous cell carcinoma of the stomach. *Gastrointest Endosc.* 2012 May;75(5):1113-4. doi: 10.1016/j.gie.2011.05.037. Epub 2011 Jul 29.