ISSN- O: 2458 - 868X, ISSN–P: 2458 – 8687
Index Copernicus Value: 68 . 16
PubMed - National Library of Medicine - ID: 101731606

International Journal of Medical Science and Innovative Research (IJMSIR)
IJMSIR : A Medical Publication Hub
Available Online at: www.ijmsir.com
Volume – 5, Issue –3, May - 2020, Page No. : 01 - 04

A Milky Malignancy – A Case Report

[1]Sharan Badiger, Department of Medicine, Sri B M Patil Medical College, BLDE (Deemed to be University), Vijayapur, Karnataka, India.

[2]Siddarthkumar Chawath, Department of Medicine, Sri B M Patil Medical College, BLDE (Deemed to be University), Vijayapur, Karnataka, India.

Corresponding Author: Sharan Badiger, Department of Medicine, Sri B M Patil Medical College, BLDE (Deemed to be University), Vijayapur, Karnataka, India.

Citation this Article: Sharan Badiger, Siddarthkumar Chawath , " A Milky Malignancy – A Case Report", IJMSIR- May - 2020, Vol – 5, Issue -3, P. No. 01 – 04.

Type of Publication: Case Report

Conflicts of Interest: Nil

Abstract

Chylous ascites is a rare form of ascitis that results from the leakage of lipid-rich lymph into the peritoneal cavity. The accumulation of chyle in the peritoneum develops secondary to traumatic injury, obstruction or rupture of the peritoneal or retroperitoneal lymphatic glands and by the exudation of lymph through retroperitoneal vessels. Here we report a case of chylous ascitis secondary to gastric adenocarcinoma.

Keywords: Chylous ascites, chyloperitoneum, gastric adenocarcinoma.

Introduction

Chylous ascites, or chyloperitoneum, is an uncommon finding characterized by the presence of a milky-appearing peritoneal fluid, rich in triglycerides. Currently, the estimated incidence in clinical practice is about 1 per 20,000 admissions [1]. Indeed, the triglyceride levels in ascitic fluid are the hallmark in the diagnosis of chylous ascites. We describe the case of a 43-year-old man presented with constitutional syndrome, abdominal distension and distension in the setting of a chylous ascites secondary to an advanced gastric adenocarcinoma.

Case report

A forty three year-old male, labour by occupation, presented to medicine outpatient department with complaints of recurrent abdominal discomfort and pain abdomen, which was of insidious onset, gradually progressive, diffusely present all over the abdomen, non-colicky type, non-radiating, non-referred, temporarily relieved on taking antacids. On examination his vitals being, pulse rate: 80 beats per minute, blood pressure: 120/76 mm of Hg. On general physical examination there was temporal muscle wasting and loss of buccal pad of fat. On systemic examination, abdomen was distended, and diffuse tenderness was noted. Other systemic examination was essentially within normal limits.

Patient was advised upper gastrointestinal endoscopy, which revealed an ulcerated nodular friable growth in the body and fundus of the stomach (suggestive of either carcinoma stomach or lymphoma, figure 1). Biopsy was taken in the same sitting, meanwhile CT

abdomen and pelvis plain and contrast were obtained which reported gastro esophageal junction, fundus, medial wall and lesser curvature showing irregular wall thickening with heterogeneous enhancement. perigastric, celiac axis and upper para-aortic regions, with possibility of lymphoma or primary malignancy of stomach and liver showing hypo dense lesion of 15x13 mm size in segment III conclusive of haemangioma or metastasis (figure 2).

On further evaluation, endoscopic biopsy was suggestive of acute on chronic gastritis with intestinal metaplasia; biopsy from body of the stomach was obtained and was suggestive of nonspecific inflammation of stomach. Since it was inconclusive, repeat biopsy from the representative area was obtained and following specimen was sent for histopathology reporting, (Further specimens from mesenteric lymph node, biopsy from mucosal surface of stomach, sclerotic lesion over mesentery were taken). Histopathology report was as follows: mesenteric lymph node-reactive lymphadenitis, mucosal biopsy-granulation tissue with chronic nonspecific inflammation, features of metastatic poorly differentiated carcinoma.

With all the supportive evidence suggestive of carcinoma stomach patient was referred to oncologist for further management and was diagnosed to have carcinoma of stomach stage 1V and was started on chemotherapy with 5-flurouracil and cisplatin. Five cycles of chemotherapy have been given, in between blood transfusion been done as he developed anaemia.

After completion of five cycles of chemotherapy, patient developed abdominal distension and pain abdomen. On examination, vitals were pulse rate: 94beats per minute, blood pressure: 110/70 mm of Hg, general physical examination patient was emaciated and pale, on abdominal examination distension was present with shifting dullness suggestive of moderate ascites other systemic examination were within normal limits. Investigations revealed, Hemoglobin: 7.2 gm% with microcytic hypochromic anaemia, total bilirubin: o.4mg%, serum protein: 4.6mg%, serum albumin: 2.4mg% suggestive of hypoproteinaemia and hypoalbuminemia. Ascitic fluid analysis was done which was white in color, turbid in appearance (figure 3); with cell count 109 neutrophils 52.2 % lymphocytes 47.8%, no RBCs seen. On biochemical examination sugar 97 mg/dl, protein 2.0 gm/dl, chloride 98 mmol/l, ADA: 39 u/l, microbiological examination with gram stain and ZN stain revealed no organism.

Further confirmation of chylous ascites was done with ascitic fluid triglyceride which was > 525 mg/dl and ascitic fluid cholesterol 50mg/dl and hence chylous ascites was confirmed. But within a span of two weeks the patient died due to respiratory failure.

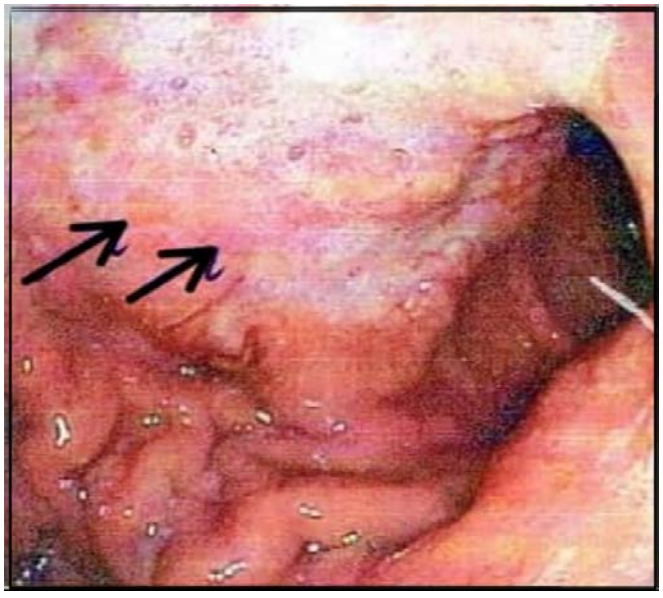

Figure 1: Upper GI endoscopy showing an ulcerated, nodular, friable growth seen in body and fundus.

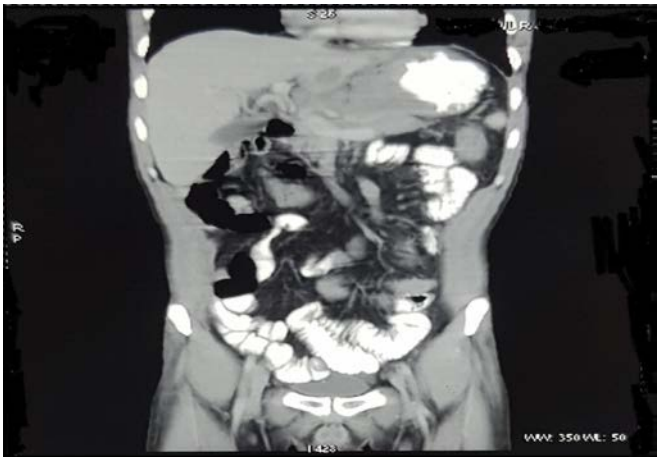

Figure 2: CECT Abdomen and Pelvis

Figure 3: Chylous Ascitic Fluid.

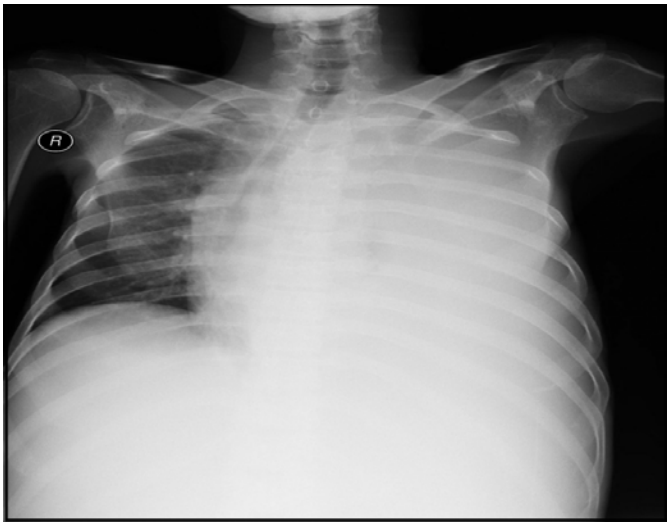

Figure 4: Chest x-ray AP view suggestive of left sided pleural effusion.

Discussion

Chylaskos or Chylous ascites is a rare form of ascites due to high concentration of triglycerides which gives milky appearance of fluid [2]. Its incidence is 1 per 20,000 admissions [1]. Asellius in the year 1627 first described the lymphatic system in a dog. Morton performed paracentesis in the year 1691 in an 18-month old boy with disseminated tuberculosis and noted chylous ascites [3]. Initially trauma was thought to be the main cause during 17th century; later other conditions like malignancies, chronic liver disease and inflammatory causes were recognized as major causes for chylous ascites [3].

It is through lymphatic system that most of the fluids and proteins flow from interstitial spaces to the vascular system. It is also through this system that lipids and lipid soluble vitamins are absorbed. Any resistance in the interstitium affects the apparent lymphatic uptake rate. Usually lymph and interstitial fluid have similar concentration and osmotic pressure. Hydrostatic and oncotic forces influence entering of molecules into the lymphatic capillaries. The route of lymphatics is as follows: Initial lymphatics, prenodal collecting lymphatics, lymphatic trunks, cisterna chyli and thoracic duct [4].

Three mechanisms have been proposed for the formation of chylous ascites. They are,

(a). Lymph node fibrosis – Primary lymph node fibrosis due to malignancy obstructing the flow of lymph from the intestine to the cysterna chyle as a result of which leakage of lymphatics to the peritoneal cavity occurs,

(b). Congenital lymphangiectasia – leak of fluid from fistula in the walls of retroperitoneal megalymphatics into the peritoneal cavity,

(c). Thoracic duct obstruction from the trauma [3].

In this case, patient was having biopsy proven stage IV gastric adenocarcinoma for which patient had taken five cycles of chemotherapy with 5-flurouracil and cisplatin. Following fifth cycle of chemotherapy, abdominal distention was observed and on fluid analysis chylous fluid was noted with ascitic triglycerides being > 525 mg/dl and cholesterol 50mg/dl, satisfying the definition of true chylous ascites, which is defined as the presence of ascitic fluid with high fat (triglyceride) content, usually more than 2gm/l [5]. Ascitic fluid analysis is the most important investigation in evaluation and management of the ascites as it reveals the type of fluid and guides us with the way the patient to be managed. In this report, our patient had aggressive progression as a result of which it was unable to address chylous ascites and gastric adenocarcinoma since the patient was diagnosed in stage IV with metastasis. Hence the patient died due to respiratory failure. This type of carcinoma with chylous ascites has poorer prognosis.

Conclusion

Chylous ascites is rarest among the types of ascites, and gastric carcinoma is also rarely associated with chylous ascites. Prompt and early diagnosis of carcinoma stomach is important in preventing such complications. Till date, no guidelines for treating malignant chylous ascites are available. Once chylous ascites has been established with carcinoma stomach prognosis is poor, hence palliative chemotherapy is advised.

References

1. Jl H. Case Study Chylous ascites and gastric adenocarcinoma : A case report and review of literature. Int J Curr Microbiol Appl Sci. 2014; 3(12):895–900.
2. Steinemann DC, Dindo D, Clavien P, Nocito A. A traumatic Chylous Ascites : Systematic Review on Symptoms and Causes. Am Coll Surg. 2011; 212(5):899–905.
3. Reviews C. Chylous Ascites. Am J Gastroenterol. 2002; 97(8):1896–900.
4. Mello RA De, Gregório T, Cardoso T. Chylous ascites due to signet ring cell gastric adenocarcinoma. Niger J Clin Pract. 2012; 15(4):487–90.
5. Khan FY, Matar I. Chylous ascites secondary to hyperlipidemic pancreatitis with normal serum amylase and lipase. World J Gastroenterol. 2007; 13(3):480–2.