Case report

Peritoneal Lymphomatosis as a cause of ascites: A case report

ABSTRACT

This case report describes an older adult patient, who was admitted to the hospital due to abdominal pain, increased abdominal perimeter, edema in the lower limbs and weight loss. Ascites was confirmed through ultrasound, although small amounts of fluid did not allow for study. Abdominal tomography revelead bowel loops crowding, omental cake and ascites; therefore, exploratory laparoscopy was indicated. Peritoneal biopsies were taken, and the diagnosis of peritoneal lymphomatosis was confirmed.

Aim: To present an unusual case of peritoneal lymphomatosis as a cause of ascites.

Keywords: Peritoneal lymphomatosis, Ascites, Non-Hodgkin's lymphoma, Abdominal pain.

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1. INTRODUCTION

Extranodal lymphomas account for about 40% of non-Hodgkin's lymphomas and the gastrointestinal tract being one of the main organs affected (1). Peritoneal lymphomatosis is the diffuse involvement of the peritoneal cavity secondary to high-grade lymphoma. This involvement produces ascites and abdominal pain, and is an infrequent cause of ascitic syndrome, with tuberculosis and peritoneal carcinomatosis being the main differential. Among the auxiliary tests we find the abdominal tomography as very useful, where the finding of caking of the intestinal loops could suggest a diagnosis of peritoneal lymphomatosis (1)(2). Peritoneal biopsy is the best procedure for definitive diagnosis. Timely treatment offers a good prognosis.

2. CASE PRESENTATION

A 81 year-old-man with a medical history of type 2 diabetes mellitus and hypertension, presented to the emergency department with progressive lower limb edema extending upwards causing abdominal distention and volume overload over the past two weeks. He had also experienced a 3-kilogram weight loss in the last month, along with mild abdominal pain and dyspnea one week prior to the admission. Physical examination revealed edema in

the lower limbs, decreased vesicular breath sounds and a distended abdomen. Chronic liver disease, renal disease and heart failure, were excluded as potential causes of the Ascites-edematous syndrome.

Ultrasound confirmed the presence of ascites and abdominal tomography reveled "caked intestinal loops" with multiple enlarged mesenteric lymph nodes, thickening of the omentum and mesentery thickening with faint enhancement. Multiple mesenteric and peripancreatic adenopathies were also observed. Ascitic fluid analysis reports turbid, reddish fluid, with high leukocyte counts, low glucosa levels and elevated protein and LDH levels. Exploratory laparoscopy further revelead ascitic fluid in all four quadrants, omental adhesions, and multiple adenopathies throughout the parietal peritoneum, serosa of the small intestine and mesentery. Biopsy confirmed the diagnosis of high-grade Non-Hodgkin's Lymphoma and peritoneal lymphomatosis. The patient was subsequently referred to a higher complexity hospital for futher management.

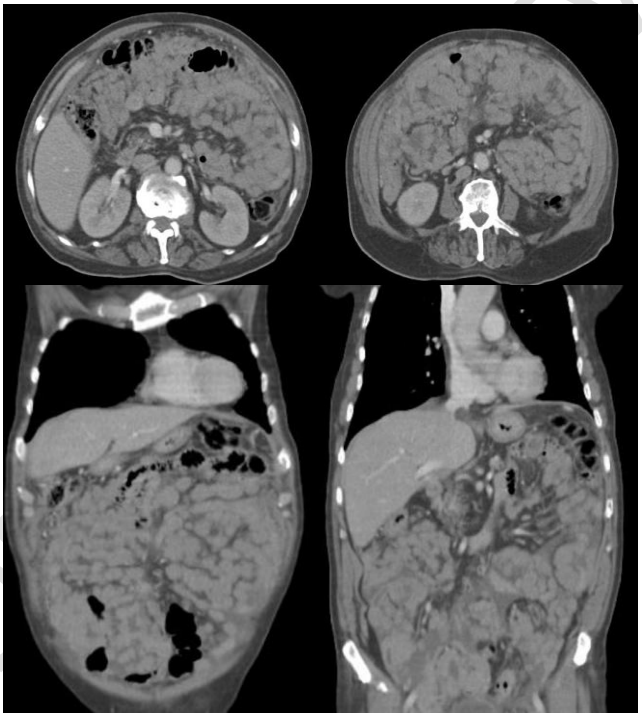

Figure 1. Presence of appeased bowel loops with multiple enlarged mesenteric lymph nodes. Omental thickening (Omental Cake). Presence of free liquid in inframesocolic space, interasas, retrovesical. Thickening of the peritoneum with faint enhancement.

3. DISCUSSION

Peritoneal Lymphomatosis (PL) is a condition where the peritoneum is invaded by lymphoid cells wich can be challenging to diagnose due to its non-specific symptoms (1)(2). To confirm PL, it is crucial to rule out other diseases that affect the abdominal peritoneum. Lymphoma involvement in the peritoneum is uncommon and diffuse large B cell lymphoma, Burkit Lymphoma, lymphoblastic lymphoma and follicular lymphoma are the most commonly

associated with it (3)(4). A patient presented with typical typical clinical manifestations of PL, including abdminal pain, edematous ascitic síndrome, and weight loss. Imaging features such as absence of septations in the ascitic fluid, lymph nodes involvement and aneurysmal dilatation of an intestinal segment with parietal thickening also suggest PL (5)(6).

Diagnosing PL based on imaging alone can be challenging, and a histopathological confirmation is necessary (7). In this case, the patient required admission for cytology of the fluid and surgical biopsy. Laparoscopic access has a higher sensitivity for diagnosis compared to tomography, with a sensitivity of 100% versus 47.8% for tomography (6). Therefore, the patient underwent diagnostic laparoscopy plus biopsy of the peritoneum and peritoneal lymph nodes, which confirmed the diagnosis of large B-cell non-Hodgkin's lymphoma. Surgical management followed by adjuvant chemoterapy is the treatment of choice for PL. Surgical management is indicated as the first choice in case of hemorrhage, perforation or occlusion and in patients who are resistant to other treatment. The overall 5-year survival rate of primary intestinal lymphoma is 53-86.4% if chemotherapy is started early (7).

4. CONCLUSION

In summary, PL is a challenging condition due to its non-specific symptoms and rarity. Imaging features may suggest PL, but a histopathological confirmation is necessary. Surgical management followed by adjuvant chemotherapy is the treatment of choice for PL. The patient in this case underwent diagnostic laparoscopy plus biopsy, confirming the diagnosis of large B-cell Non-Hodgkin's lymphoma.

CONSENT

In accordance with international standards, written consent has been collected and preserved by the authors.

ETHICAL APPROVAL

The information obtained has been collected and preserved by the authors, protecting the confidentiality of the data provided, thus following the Helsinki parameters.

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