MEDICAL FORUM

MESENTERIC LYMPHOMA – A CASE REPORT

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SUMMARY

Mesenteric lymphoma is very rare of mesenteric tumors, approximately 30%–50% of patients with non-Hodgkin lymphoma harbor disease in the mesenteric lymph nodes. We present the case of a 57-year-old male with mild abdominal pain and a history of pulmonary tuberculosis. Abdominal computed tomography revealed a dense tissue replacing mesenteric fat, surrounding loops of bowel. The differential diagnosis between primary mesenteric lymphoma and others peritoneum diseases such as peritoneal carcinomatosis, malignant primary peritoneal mesotheliomas, tuberculous peritonitis, sarcomatosis, diffuse peritoneal leiomyomatosis or benign splenosis, constitutes a major problem in imaging techniques. Our report demonstrates a rare and important differential diagnosis of abdominal pain and the crucial role of surgical excisional biopsy to diagnose mesenteric ly mphoma.

Keywords: *Mesenteric lymphoma, non-Hodgkin lymphoma, abdominal CT scan.*

INTRODUCTION

Mesenteric tumors are quite rare and include a diverse group of histologic entities with widely differing management strategies and prognosis. Their discovery is most often fortuitous or occurs during evaluation of vague non-specific abdominal symptoms. Computed tomography with IV contrast (CT) is the critical diagnostic imaging study. At times, the clinical context and laboratory findings may be sufficient to establish a definitive diagnosis but, in most cases, histopathologic diagnosis is necessary; this may require CT guided needle biopsy, surgical biopsy, or immediate surgical resection. Mesenteric lymphoma is extremely rare, and most mesenteric involvement is found during staging workup for lymphoma in other primary sites. We present a case that was discovered incidentally during admission.

CASE REPORT

A 57-year-old man with a history of pulmonary tuberculosis who received a full course of treatment 13 years ago. He was admitted to the hospital with a headache and was diagnosed with meningitis. Besides, he has mild abdominal pain in the right lower quadrant and the pain increases when pressed. Cerebrospinal fluid culture results are negative but abdominal ultrasonography showed a large mass from the right hypochondrium to the pelvis, surrounding the blood vessels and bowel loops. The patient underwent a contrast-enhanced computed tomography scan of the abdomen and pelvis on a 32-slice machine with non-contrast, arterial, and venous phase. His abdomen and pelvis CT showed a dense tissue replacing mesenteric fat, surrounding loops of bowel (sandwich sign). This mass surrounds the blood vessels and has poor

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contrast enhancement (Figure 1). The small bowel loops were dilated (40mm in diameter) and the terminal ileum wall thickened (10mm in diameter) (Figure 2). Radiologists aim to diagnose mesenteric lymphoma, which should be differentiated from mesothelioma and intestinal tuberculosis. The patient was followed up and a few days later the abdominal pain gradually increased. He had an ileostomy - transverse colon and total omentectomy for pathology. The loops of the ileum are dilated, and the inflammatory terminal is narrow. Along the ascending colon and the intestinal loops there are many necrotic nodes (Figure 3). Based on these findings, his post-operative diagnosis was intestinal tuberculosis. However, histological examination of the obtained samples reveals a diffuse malignant lymphoma (Figure 4).

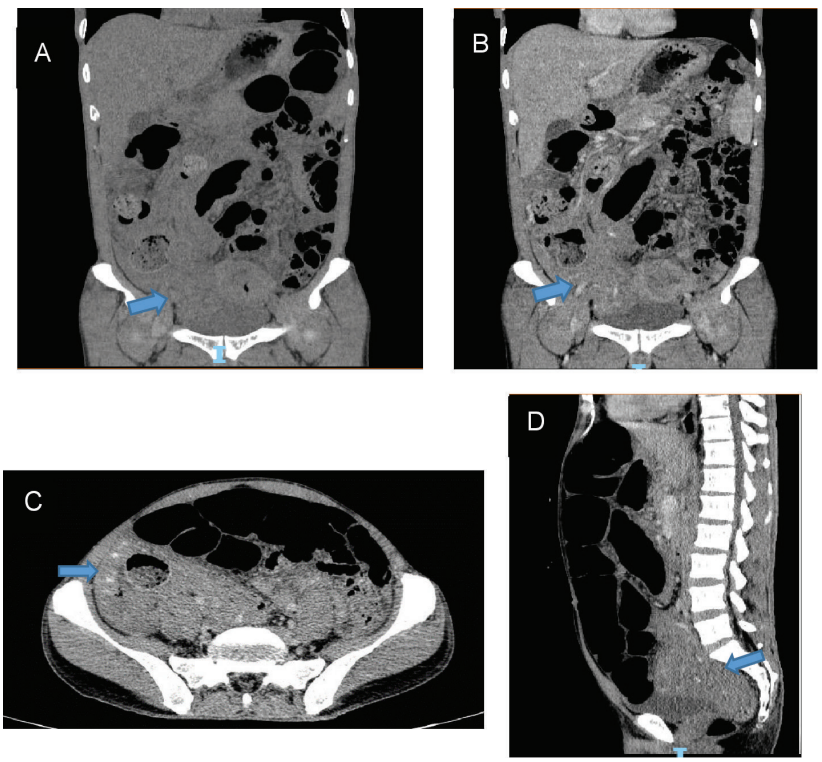

Figure 1. (A) Non-contrast - abdominal computed tomography (CECT). (B, C, D) Contrast enhancement computed tomography in coronal, axial, sagittal show a dense tissue replacing mesenteric fat, surrounding loops of bowel

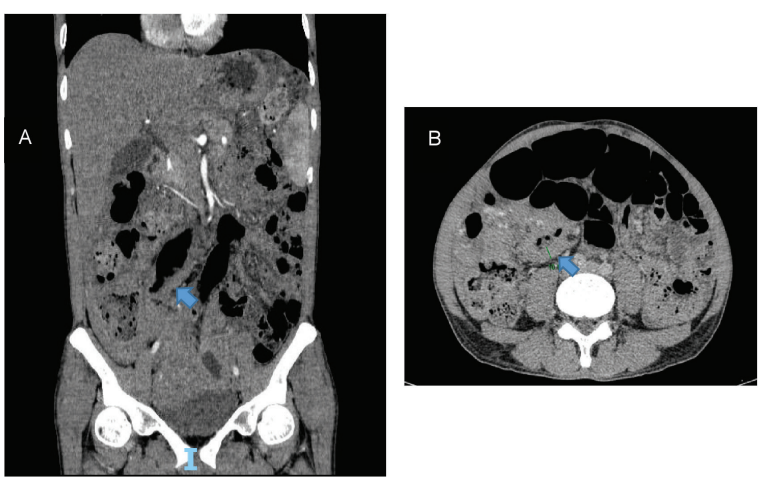

Figure 2. Contrast enhancement computed tomography in coronal (A), axial (B) shows the small bowel loops were dilated and the terminal ileum wall thickened

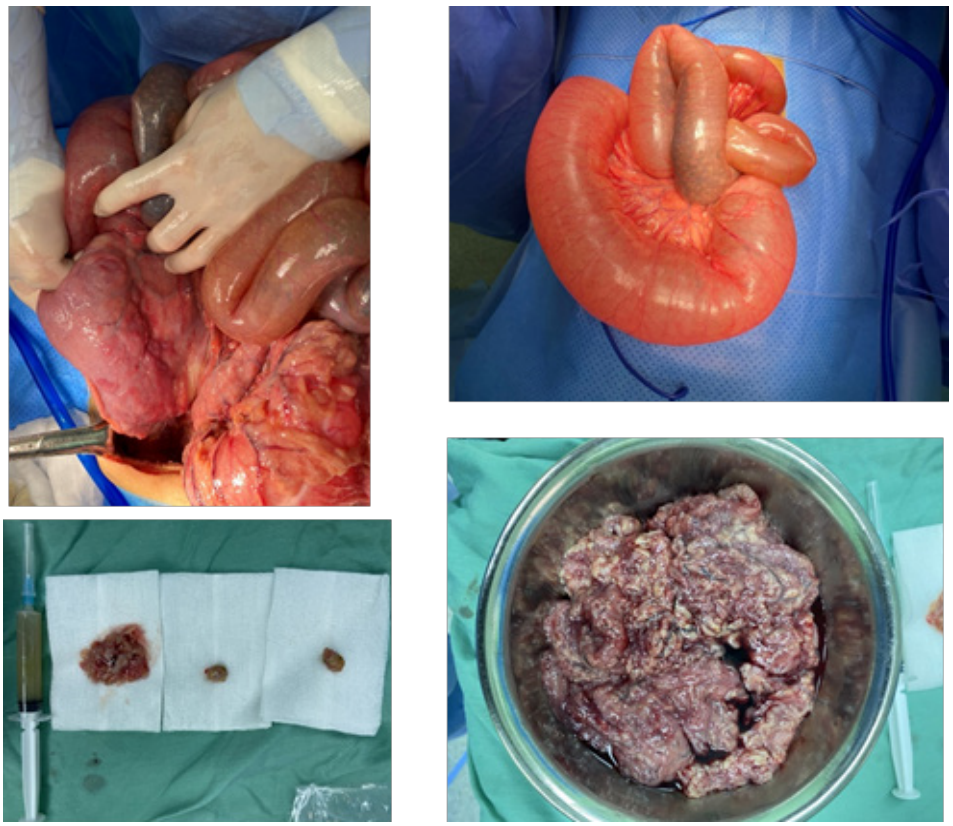

Figure 3: Large dilated bowel loops and many necrotic lymph nodes

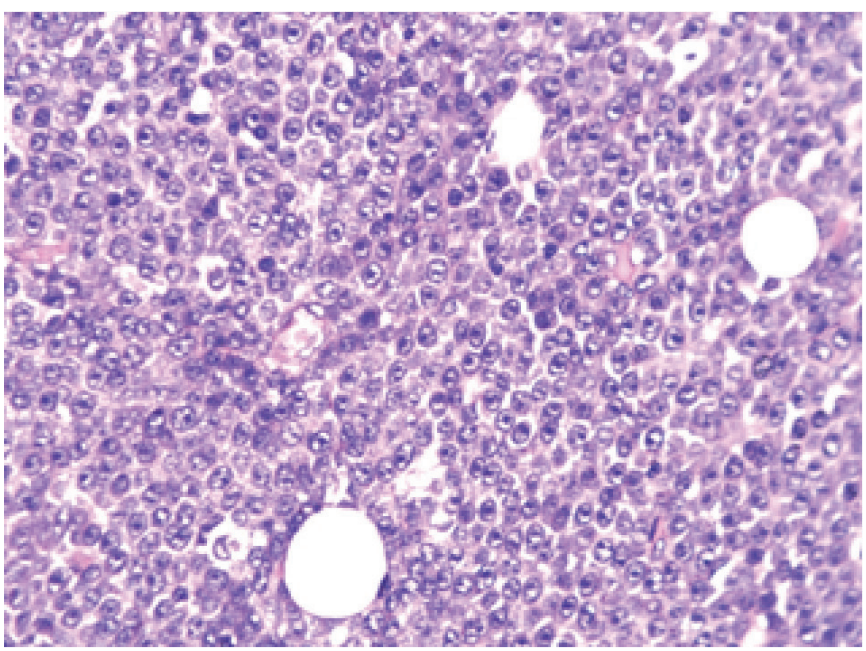

Figure 4: The lymph node structure is completely destroyed, the lymphocytes are small and medium size, most of the lymphocytes are immature. The nucleus is large, the color is increased, the nuclear membrane is thick, the nucleus is clear, and there are many divided nuclei. The cortex is invasive.

Discussion

There are numerous causes of mesenteric adenopathy. Lymphoma, carcinoma, sarcoma, carcinoid tumor, tuberculosis, Whipple disease and inflammatory bowel disease are among the most common causes. Lymphoma is the most common mesenteric malignancy. In most cases, these are non-Hodgkins lymphomas [1] (40—67% are large B-cell tumors [2]omental and mesenteric lymphoma involvement. Materials and methods: We searched our archive retrospectively to find out patients with peritoneal, omental and mesenteric lymphoma involvement. We found 16 patients with non-hodgkin lymphoma meeting these criteria. CT studies of these patients were reevaluated for the presence of peritoneal involvement, ascites, omental mass, organomegaly, retroperitoneal lymphadenopathy, bowel wall thickening and other associated findings. Results: There were 14 males and 2 females with peritoneal and/or mesenteric and omental lymphoma involvement. Mean age was 39 (range 4-76). Mesenteric lymphomas may remain asymptomatic for years, even when the tumor is voluminous. Systemic symptoms (fever, night sweats, weight loss) indicate advanced-stage disease. Complications such as intestinal obstruction, perforation and hemorrhage are rare [3].

A common finding on Computed Tomography (CT) imaging of mesenteric lymphoma is termed the “sandwich sign”. The sandwich sign appears as multiple rounded, mildly enhancing masses encasing mesenteric vessels [4] [5]. The mesenteric fat and tubular vascular structures serve as the “filling,” and the homogeneous soft tissue masses serve as the “sandwich bun”. Other CT appearances of mesenteric lymphoma include: a large, lobulated and “cakelike” heterogeneous mass displacing small bowel and containing areas of necrosis (low attenuation); or ill-defined infiltration of mesenteric fat. Mesenteric lymphoma can occasionally invade the bowel serosa and muscularis propria, which can result in GI bleeding.

Carcinomas, sarcomas, and carcinoid tumors all originate within the small bowel and then spread to the mesenteric nodes. These neoplasms quickly invade the bowel wall, causing perforation, hemorrhage, and widespread disease. Infectious and inflammatory disorders are not known to cause the large nodal masses needed to produce the sandwich sign. If they do, there is often necrosis or rim enhancement involved, as seen in tuberculosis. Therefore, these neoplasms, infections, and inflammatory disorders do not produce a sandwich sign. This sign is specific to mesenteric lymphoma [6]. In our case, the patient had a history of pulmonary tuberculosis, numerous necrotic lymph nodes and inflammation of the terminal ileum. This made us think of intestinal tuberculosis. However, these are also some rare symptoms of mesenteric lymphoma. On the other hand, mesenteric lymphoma usually surrounds the vessels, loops the bowel, is characterized by a sandwich sign, but in our case the tumor invaded the terminal ileum. This is a rather special case compared to the previously reported cases, it represents the growth over a long time of the tumor.

CONCLUSION

This is a rare case of clinical and imaging findings of mesenteric lymphoma. It’s very difficult to diagnosis, require consulting multidiplincinary. Abdominal computed tomography, surgical, and histopathological must be combined for a final diagnosis.

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