CAVITATING MESENTERIC LYMPH NODE SYNDROME: A CASE REPORT

Osama Rabadi MD*, Sami Hijazin, MD, Nabeeha Abbasi, MD, Yara Sahawneh, MD, Talal Al-Shawabkah, MD

KHMC Jordan.

*Corresponding Author: Dr. Osama Rabadi
KHMC Jordan.

INTRODUCTION
Cavitating mesenteric lymph node syndrome is a rare and aggressive complication of celiac disease (CD) that is characterized by low attenuated (cystic) changes in mesenteric lymph nodes.[1,2,3] Previous reports documented in the literature about 40 cases.[4] Celiac Disease is a common systemic disease and immune mediated enteropathy affecting about 1% of all people worldwide.[3] Refractory CD is associated with fatal complications such as enteropathy-Tcell lymphoma.

CASE REPORT
63 year old male patient was seen at gastrointestinal clinic at King Hussein medical city (KHMC) on April/2015 with a past medical history CD 16 years ago. The patient reported that he experienced recurrent similar attacks of abdominal pain, associated with weight loss (20 –kg) in the last 6 months and diarrhea. He also reported a noncompliance on follow up neither gluten free diet (GFD). Family medical history was not contributory. The physical examination was unremarkable with mild left abdominal tenderness with no palpable masses or organomegaly. Laboratory test results revealed signs of anemia and hyposplenism by peripheral blood film that showed the presence of Howell-Jolly bodies. Serum calcium level was low at 7 mg/dl (normal range, 8.6-10.2 mg/dl), serum albumin 2.8 g/dl (normal range, 3.5-5.5 g/dl). Serum transfelaminase IGA antibodies level was elevated. Abdomino-pelvic CT scan performed in ER revealed multiple enlarged pathological necrotic lymph nodes in the mesentery which increased in size and number in comparison to previous CT dated 6 months earlier. Upper GI endoscopy showed a malabsorption pattern with D11 sever atrophy and fissuring. Duodenal biopsies showed the presence of crypt hyperplastic villous with atrophy in keeping with celiac disease. With no evidence of granuloma, dysplasia or neoplasia.

Laparoscopic lymph node biopsy was done and revealed the diagnosis mesenteric L.N cavitating syndrome, with no evidence of malignancy. Close F.U 5 months later after starting of a strict GFD was done and showed dramatic improvement in clinical, biochemical and radiological status. There was a sign build up in hematocrit, with replenished iron stores, normalization of albumin, calcium and vit D levels and a significant drop in Ttg antibodies to normal.

DISCUSSION
Cavitating mesenteric lymph node is a rare and poorly understood complication of celiac disease.[1, 2, 4]
Clinically, patients with cavitating mesenteric lymph node syndrome present with recurrent attacks of diarrhea, weight loss and general weakness. Moreover, clinical signs of hyposplenism may be evident with increased risk of infections. Peripheral blood smear often reveals target cells, Howell-Jolly bodies and splenic atrophy may be present.\(^1,2\)

Small bowel villous atrophy is usually present at upper GI endoscopy and tissue biopsies. At laparotomy, multiple cystic masses with thick creamy fluid are observed in the small bowel mesentery. Microscopic examination reveals cavitated atrophic lymph nodes without evidence of malignancies (lymphoma) or infections (Tuberculosis). Theses lymph node changes are always confined to the mesenteric nodal chain.\(^3\)

The pathophysiology of this disease is not well known. The lymphatic drainage of small bowel is termed Lacteals, which are characterized by the special function of absorption and transfer of emulsified fat. For unexplainable reasons, the mesenteric lymph nodes undergo cystic changes in some patients with CD. These changes have been related to excessive antigenic exposure which leads to depleted cellular lymphoid elements in the nodes and spleen. Also, this phenomenon could be a reflection of necrosis of the nodes triggered by localized immune-mediated complement activation and intravascular coagulopathy.\(^3\)

By CT, the cystic mesenteric masses have low attenuated center with thin enhancing rims. The central material may be fluid or fat attenuation.\(^1,3,5\) Reported lymph nodes have measured 2-8 cm in diameter.\(^3,4\) Sonographically, the mesenteric masses appear as anechoic cysts.\(^2,3,4\) Splenic atrophy may be present. Ultrasound guided diagnostic aspiration of these cysts has been described.\(^3,4\)

The diagnosis of cavitating mesenteric lymph node syndrome is of great importance, because it must be distinguished from other pathologies such as lymphoma and tuberculosis. Moreover, the imaging findings of cystic mesenteric lymph nodes may allow the radiologist to suggest cavitating mesenteric lymph node syndrome associated with previously unrecognized celiac disease. Finally, proper early diagnosis is fundamental to lower the morbidity and mortality associated with untreated C.D and the associated increased risk of malignancy.

The prognosis of patients with mesenteric lymph node cavitation is uncertain.\(^4\) There is some evidence of increased mortality related to complications of severe malnutrition, hemorrhagic intestinal ulceration and overwhelming sepsis which is mostly related to functional hyposplenism.\(^1,2\) Furthermore, there is uncertainty about the mesenteric cyst regression with the institution of strict gluten free diet (GFD) because of the lack of long term imaging data. However, the most recent reported cases seem to have less morbidity which could be due to more aggressive nutritional support and strict GFD.

**CONCLUSION**

In conclusion, cavitating mesenteric lymph node syndrome is a rare complication of celiac disease with increased morbidity and mortality that mandates immediate and strict treatment and close follow up. Furthermore, follow up of all reported cases by biochemical and radiological investigation will help to delineate the prognosis and outcome of such a complication.

**REFERENCES**