Mesenteric lipodystrophy is a rare condition characterized by a nonspecific inflammatory process that involves the root of the mesentery in a lipoma-like lesion. We reported a case of sclerosing mesenteritis presenting as recurrent abdominal pain, profound weight loss, dilated cardiomyopathy, malabsorption and a mass on computed tomography scan of the abdomen in a 42 years old man with previous history of lymphoma. Because of the wider differential diagnosis in such cases, the patient underwent an extensive workup culminating in laparoscopy with biopsy. This case illustrated that mesenteric lipodystrophy should be included in the differential diagnosis of retroperitoneal and mesenteric tumor.

KEY WORDS: Lipodystrophy; Mesentery; Lymphoma; Diagnosis, Differential
Retroperitoneal lymph nodes were not enlarged significantly. Aorta and vena cava were not affected. The liver was homogeneous in density, slightly enlarged. The lien and pancreas had the normal shape. The results of abdomen CT primarily suggest the presence of retroperitoneal tumor, furthermore, considering differential diagnosis it could be recognized as liposarcoma with predomination of mucus component (Figure 1).

The patient was further examined by endoscopy. Colonoscopy could only be done up to lienal flexure, because of the presence of strong spasm and intraperitoneal adhesions. The colon mucous membrane was without any pathological changes. The small-bowel barium study revealed normal passage of barium throughout the loops. The loops of jejunum were dislocated to the left part of abdomen and the loops of ileum to pelvis. Ileum loops were distended and Kerkring’s crypts were elongated. Stenosis, which could be the cause of this dilatation, was not visible. Enteroclysis was suggested. Results of all these examinations could not provide the correct diagnosis, so the patient underwent explorative laparotomy on September 10th 1997. During the exploration of abdomen, relapse of lymphoma was not found and no changes on the jejunum anastomoses were visible. From the root of mesentery, in peritoneal cavity, the loosely fatty, thickened and partly steatonecrotic lesion was found. The tumor did not produce any invasion neither on vascular system nor on small bowel passage (Figure 2). Extempore biopsy of lesion in the mesentery indicated steatonecrosis, and the final result of histological examination confirmed mesenteric lipodystrophy (Figure 3). In the second week of September 1997, the patient was discharged in good condition.

In November 1997, the patient came complaining of frequent, loose and watery stools without mucus and blood, weight loss, and low-grade fever. The patient was treated on outpatient basis with ciprofloxacin and loperamide ambulatory, which led to clinical improvement. He was admitted to hospital for additional examination. During his hospitalization, a magnetic resonance imaging (MRI) of abdomen was performed, which pointed to hepatomegaly (170 mm at midclavicular line) without pathological changes, dilated intrahepatic bile ducts, gallbladder, renal pelvis system and proximal ureter from left side, v. mesenterica superior, and multifocal round masses diameter of 1 cm in mesentery (Figure 3). Laboratory values were normal. Treatment with ciprofloxacin was started and certain improvement was noted, so he was dismissed by the beginning of December 1997. The patient was regularly controlled.
In September 1998, he came to cardiologist because of chest discomfort. Physical examination showed sinus tachycardia (100/min), a grade 2 systolic ejection murmur was heard at the cardiac apex, arterial pressure 13/9 kPa, as well as signs of chronic heart failure. The chest radiograph demonstrated left ventricular enlargement, signs of pulmonary congestion. The electrocardiogram showed sinus tachycardia, negative T-waves in precordial leads. Echocardiography presented left ventricular enlargement, signs of pulmonary congestion. The electrocardiogram showed sinus tachycardia, negative T-waves in precordial leads. Echocardiography presented left ventricular enlargement (LVID 8.4) with normal thickened walls, reduced ejection fraction (EF 0.30), and considerably dilated cardiomyopathy was established. Standard therapy with salt restriction, diuretics, digitalis, and nitrates was started. He was being given the considered therapy in prescribed order and committed to controls.

In the autumn of 1999, the patient suffered of gastrointestinal malaise again, which resulted in profound weight loss. He denied any other discomfort. On the reception, patient was of asthenic constitution, with no signs of cardiac decompensation. The mild anemia existed. Serum amylase, liver enzyme and electrolyte values were normal. LDH was slightly increased. The computed tomography of abdomen: on each scan the signs of dilatation of bowel loops (both small and large bowel) were visible, which was caused by the presence of air and secret. Enteroclysis was done, and the result suggested malabsorption syndrome.

During the hospitalization, the patient developed the tachyarrhythmia, which was presented with polymorphic ventricular extrasystoles. Mexiletine a 100 mg every 8 h was introduced. By the oral administration of corticosteroid (40 mg/day), diet nutrition, the patient’s condition was improved and he was dismissed. He never came to be controlled and we were informed that he had died.

**DISCUSSION**

Mesenteric lipodystrophy, also referred as sclerosing mesenteritis, retractile mesenteritis or mesenteric panniculitis, is a rare condition slightly predominant in male population with a peak incidence found in the fifth and sixth decades of life (1,2). The etiology of ML is unknown. Predisposing factors such as infection, trauma, surgery, malignancy, and autoimmune disease have been suggested (3). Presenting features of ML are protein and usually include abdominal pain, weight loss, nausea, vomiting, malaise, diarrhea, gastric outlet obstruction or small bowel obstruction. (2,4,5) Symptoms may be absent, progressive or intermittent. Symptoms often persist for a year or more. Physical examination may disclose an abdominal mass with or without tenderness in approximately half of the patients, whereas 20% of the patients have no abdominal complaints, and the mesenteric mass can be an incidental finding (6,7). Laboratory tests are generally of none help.

The diagnostic criteria of ML include: (1) presence of a single, multiple or diffuse mass-like inflammatory lesions in the mesentery; (2) histological confirmation of fat necrosis and inflammatory reaction in the mesenteric lesions; (3) exclusion of pancreatitis, inflammatory bowel disease, vasculitis and Weber-Christian disease (extra-abdominal fat necrosis) (8). The diagnosis is generally established by laparotomy and biopsy (2,5). The characteristic histological appearance of ML consists of degeneration of fat cells, areas of fatty necrosis, and an occasional infiltration with lipophages, macrophages, plasma cells, neutrophils, proliferative myofibroblasts that form hyaline collagen, lymphocytes, and foreign body giant cells (2,7).

Computed tomography provides the best means of imaging this lesion. CT is useful in defining the extent of ML and may be helpful in planning the treatment (9,10). The typical CT findings include inhomogeneous masses of both fat and soft tissue attenuation at the root of the mesentery and surrounding vessels, without vascular distortion. The findings on CT of the abdomen vary, depending on the stage of the disease and, either the inflammatory or fibrosis component dominates (11). When diffuse inflammation of mesenteric fat is the predominant component, the inflammatory lesions appear as well-defined fatty tumors throughout the small bowel mesentery (11). These fatty tumor-like lesions present inflammatory infiltrates and fibrotic areas associated with mesenteric vessels, which are displaced and surrounded by the involved fat but not invaded (10,11). When fibrosis is the predominant feature, the mesenteric lesions appear as predominantly soft-tissue densities (11). On magnetic resonance imaging (MRI), ML may appear predominantly as a high-intensity tumor, with intensity identical to that of peritoneal fat (12). The differential diagnosis of ML should include mesenteric fibromatosis, inflammatory pseudotumors, idiopathic retroperitoneal fibrosis, sclerosing malignant lymphoma, malignant primary mesenteric tumor, metastatic neoplasm, and various granuloma-
tous lesions (5,7). The prognosis for ML is generally good, and in most cases, spontaneous remission is the most common outcome. Corticosteroids and immunosuppressive agents have been used successfully in a few aggressive cases (13,14). Surgical intervention may be necessary if obstructive symptoms develop. In the issued case, mesenteric lipodystrophy was manifested in unspecific gastrointestinal symptoms like intermittent abdominal pain, weight loss, nausea, malaise and diarrhea. Physical examination could not reveal any abdominal mass and laboratory tests were not conclusive. Because of the wider differential diagnosis in such cases, the patient underwent an extensive workup. The CT of abdomen only, revealed retroperitoneal tumor imaging as liposarcoma. Respecting the results of examination, diagnosis of lymphoma was excluded as well as other conditions and diseases usually associated with ML. Though preoperative diagnosis was not possible in our case, the patient underwent to explorative laparotomy and the tumor biopsy. Surprisingly histology revealed invasion by sclerosing mesenteritis. The mesenteric lipodystrophy is an extremely rare condition never noted in our medical literature. The certain cause of ML in our case was never found. The development of dilated cardiomyopathy as well as malabsorption syndrome could be explained by the evolution of ML. It is supposed these two conditions caused fatal ending.

CONCLUSION

Mesenteric lipodystrophy is a rare condition that can be mistaken for a mesenteric neoplasm based on clinical, radiologic, and gross characteristics. The causative agents are unknown, although an association with lymphoma has been reported. A firm diagnosis can be reached only by histological examination and a number of conditions need to be considered in the differential diagnosis. This case highlights the manifestation of mesenteric lipodystrophy and suggests that it should be included in the differential diagnosis of retroperitoneal and mesenteric tumor.

REFERENCES