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Approach to cases diagnosed with mesenteric panniculitis

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Abstract

Approach to cases diagnosed with mesenteric panniculitis

Objective: In this study, it was aimed to report the diagnosis, treatment and follow-up results of patients who came to the hospital with complaints of abdominal pain and were diagnosed with Mesenteric Panniculitis (MP) by Abdominal Computed Tomography (ACT).
Method: 32 patients diagnosed with MP by ACT were examined retrospectively. The patients' age, gender, admission leukocyte count, CRP values, comorbidities, medications prescribed at discharge, and relapse status were evaluated.
Results: Of the 32 patients included in the study, 11 were male (34.4%), 21 were female (65.6%), and they had a mean age of 58.75±12.31 years. The average leukocyte value at first admission was 8240±2530 /mm³, CRP average 24.93±47.39 mg/L, neutrophil percentage was not above 80% in any patient. No patients were hospitalized. Recurrence was occurred in 2 (6.25%) patients (after 6 months and 28 months). No malignancy were during follow-up.
Conclusion: MP was diagnosed with ACT. No biopsy was required for diagnosis. Medical treatment was sufficient, no surgical procedure was performed on the patients.
Keywords: Abdominal pain, Computed tomography, Mesenteric Panniculitis

INTRODUCTION

Mesenteric panniculitis (MP) is a rare chronic inflammatory disease of the mesentery (1). Although its etiology is not clear, there are many diseases with which it is associated. Vasculitides, granulomatous diseases, rheumatological diseases, malignancies, pancreatitis, previous abdominal surgery or trauma, ischemic damage and infections are listed as underlying or possibly related conditions (2,3,4).

Prevalence of MP is 0.16-7.8%. MP frequently seen between the ages of 50-60 and is more common in men. In most cases, the small intestinal mesentery is affected. The clinic may vary depending on the stage of the disease (1,2,3).

The most common symptoms are abdominal pain, nausea, vomiting and palpable fullness (1,3). Diagnosis of mesenteric panniculitis is usually set by abdominal computed tomography (ACT) and magnetic resonance imaging without the need for biopsy (5). It was aimed in this study is to determine the follow-up and treatment results of patients diagnosed with Mesenteric panniculitis, a rare cause of abdominal pain.

METHOD

Ethical permission was obtained from the Kahramanmaraş Sütcü İmam University, Medical Faculty Non-Invasive Clinical Research Ethics Committee for this study with date 17.06.2021and number 313.

In this research, 32 patients who were come to the hospital with abdominal pain between September 2014 and June 2021 and were diagnosed with MP on ABT were retrospectively analyzed (Figure1,2).

The data of the patients were obtained from hospital records and in necessary cases patients were contacted via phone. Patients were called in for a check-up every 6 months, and those who did not come for the check-up were contacted by phone. They were invited to the hospital for an examination. Patients who did not come for a follow-up, whose data could not be accessed, and who had additional pathology when diagnosed with MP were excluded from the study. The patients were evaluated in terms of age, gender, first admission leukocyte and CRP values, comorbidities, medical treatment, recurrence and follow-up period.

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RESULTS

32 patients were evaluated retrospectively, 11 were male (34.4%), 21 were female (65.6%), and they had a mean age of 58.75±12.31 years, follow-up time was 44.31±20.37 months. The average leukocyte value at first admission was 8240±2530 /mm³, CRP average 24.93±47.39 mg/L, neutrophil percentage was not above 80% in any patient (Table.1).

Table 1. Patient Demographics

Gender (Male/Female)		11 M / 21 F
Mean Age (Years)		58.75±12.31
Leukocyte Average		8240±2530 /mm³
CRP Average		24.93±47.39 mg/L
Follow-up period (months)		44.31±20.37
Recurrence		2 (6.25%)

There was no comorbidity in 9 patients. There was one disease in 8 patients, two diseases in 10 patients, and three diseases in 5 patients. 11 patients had type 2 diabetes mellitus and 15 patients had hypertension disease. Trimethoprim-sulfamethoxazole was prescribed to 3 patients, ciprofloxacin was prescribed to 11 patients, amoxicillin-clavulanic acid was prescribed to 3 patients, and only anti-inflammatory was prescribed to 15 patients (Table.2).

Table 2. Medical treatment

Trimethoprim-Sulfamethoxazole	3 (%9,375)
Ciprofloxacin	11 (%34,375)
Amoxicillin-Clavulanic acid	3 (%9,375)
Anti-inflammatory	15 (%46,875)

No patients were hospitalized. Recurrence was occurred in 2 (6.25%) patients (after 6 months and 28 months). In the first treatment of relapsed patients, one was prescribed antibiotic (28 months) and the other was prescribed anti-inflammatory drug (6 months). When the disease recurred, both patients were prescribed only anti-inflammatory drugs and no antibiotics. No malignancy were during follow-up. No surgical procedure was performed on any patient.

DISCUSSION

MP is a disease of unknown etiology, characterized by a tumor-like mass consisting of chronic nonspecific inflammation, fat necrosis and fibrosis involving the mesenteric fat tissue (6,7). In 1924, mesenteric panniculitis was first described in the medical literature by Jura et al. In an autopsy study performed on more than 700 cases, MP was detected in 1% of the population (2,8). Although the incidence was observed more frequently in men in studies, it was observed more frequently in women in this study. (1,9).

Inflammatory disease of the mesentery is histologically characterized by a series of progressive changes. Initially, the mesentery is infiltrated by lipid-filled macrophages and is called mesenteric lipodystrophy.

As this condition progresses further and inflammation and fat necrosis are added, the acute and subacute form known as mesenteric panniculitis occurs. The chronic form, in which fibrosis and necrosis occur and shortening of the mesentery occurs, is known as retractile or sclerosing mesenteritis (10,11). In this study, clinical staging was not performed, all patients were evaluated under the diagnosis of mesenteric panniculitis.

Clinical findings are nonspecific and atypical. Abdominal discomfort, chronic abdominal pain, change in bowel habits, bleeding, intra-abdominal mass, fever, nausea, vomiting, chylous ascites and weight loss are the main clinical symptoms and complaints (10,12). The most frequently reported complaint in the literature is abdominal pain (3,13). In all of cases, the complaint of abdominal pain was at the forefront.

Symptoms may be progressive, or they may be self-limiting and regress in a short time. Mesenteric inflammation/fibrosis rarely causes shortening of the mesentery and compression of the mesenteric vessels, leading to the development of ascites, superior mesenteric vein thrombosis, mesenteric ischemia and ileus (14,15). In this study, no thrombosis, ischemia or ileus was observed in any patient.

Surgical intervention should be performed in serious complications of mesenteric panniculitis such as bowel obstruction or perforation; There are sources that argue that mild or asymptomatic patients can be followed up without treatment (16). There was no need for surgical intervention as no complications developed in the patients who were followed up.

Laboratory test results are usually normal. Studies have reported that there may be an increase in acute phase reactants (6). In this study, the leukocyte value was often within normal limits, and the CRP value was slightly high.

Diagnosis of mesenteric panniculitis is usually set by abdominal computed tomography and magnetic resonance imaging without the need for biopsy (5,17). ACT finding usually seen in mesenteric panniculitis; heterogeneous mass, localized to the mesentery or adjacent bowel loops, encapsulated, mostly on the left (2). All patients we followed were diagnosed with ACT (Figure 1, 2).

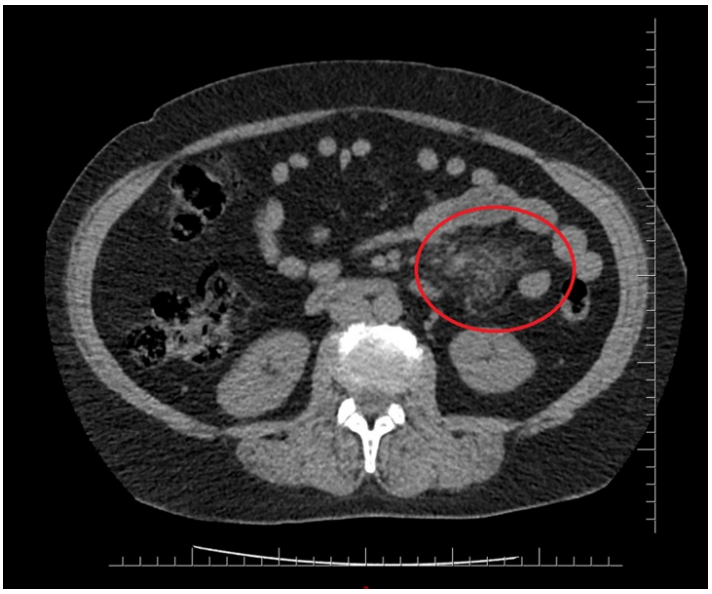

Figure 1. Tomography image of mesenteric panniculitis.

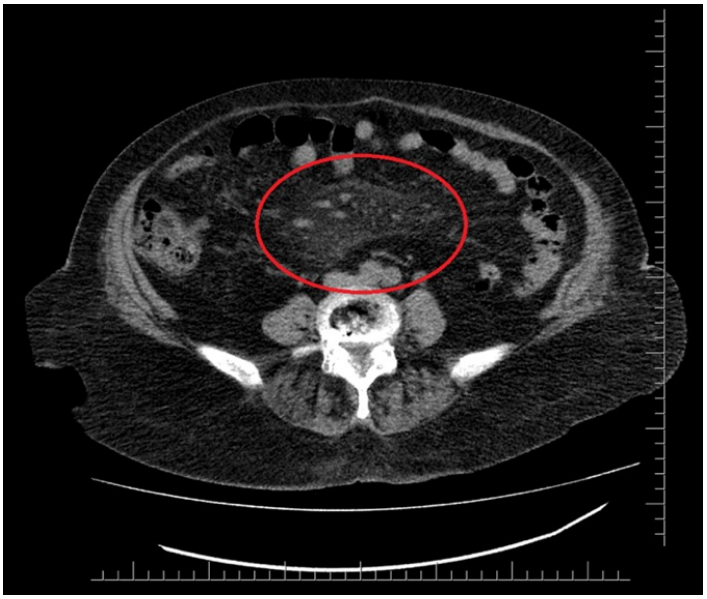

Figure 2. Tomography image of mesenteric panniculitis.

The course of this disease is mostly benign, it is self-limiting, and the inflammatory event regresses spontaneously (18). The treatments of the patients we followed varied, but none of them required surgical intervention. Recurrence was observed in 2 patients, and the complaints in these patients resolved with medical treatment. No malignancy was found during the follow-up of our patients.

There is no common approach to treatment. While many patients are followed up without treatment with conservative approaches, symptomatic patients who were treated with corticosteroids, azathioprine, cyclophosphamide, thalidomide and tamoxifen and were successful have been reported in the literature (1,13,19,20).

17 of our patients were given antibiotics and 15 were given anti-inflammatory drugs, and their complaints resolved during follow-up. Only 2 of the treated patients relapsed during follow-up. In the first treatment of relapsed patients, one was treated with antibiotics and the other with an anti-inflammatory drug. In the second treatment of relapsed patients, both were prescribed anti-inflammatory drugs.

CONCLUSION

In this study, contrary to the literature, MP was observed more frequently in women. No patient required a biopsy or invasive procedure for diagnosis. All patients were diagnosed with ACT. The leukocyte count was generally normal. No difference was observed in the follow-up of patients treated with only anti-inflammatory and those treated with antibiotics. We believe that the use of antibiotics in the treatment of mesenteric panniculitis is unnecessary and nonsteroidal anti-inflammatory drugs are effective in both pain control and regression of inflammation. However, more comprehensive studies with more patient groups and longer follow-up periods are needed.

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Peer-Review

Both externally and internally peer reviewed.

Conflict of Interest

The authors declare that they have no conflict of interests regarding content of this article.

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Ethical Declaration

Ethical permission was obtained from the Kahramanmaraş Sütcü İmam University, Medical Faculty Non-Invasive Clinical Research Ethics Committee for this study with date 17.06.2021 and number 313.

Authorship Contributions

Concept: GE, Design: GE, GD, Supervising: MU, Financing and equipment: GE, SA, Data collection and entry: GE, Analysis and interpretation: GE, SS, Literature search: GE, SA, SS, Writing: GE, GD, Critical review: MU

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