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Case Report
Olgu Sunumu

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Crohn's Disease Presenting with Acute Monoarthritis: A Case Report

Akut Monoartrit İle Prezente Crohn Hastaliği: Bir Olgu Sunumu

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Abstract: Inflammatory bowel disease (IBD) is a systemic disease and is accompanied by extraintestinal findings in up to 50% of cases. Extraintestinal findings occur before the diagnosis of IBD in only 6% of cases. Findings aren't always related to the degree of inflammation in the intestine and can be seen without intestinal symptoms. Musculoskeletal pathologies are seen in 6-46%; arthritis is more common in Crohn's patients with colonic involvement than ulcerative colitis; it can be classified as type 1 arthropathy, which is usually acute, asymmetric, and frequently involves a single large joint such as the knee joint, and type 2 arthropathy, which is symmetric and involves multiple small joints such as the metacarpophalangeal joints. Type 1 arthropathy develops in most cases of IBD accompanied by arthritis, and the rate is only about 5%. Joint findings are mostly related to IBD activity, usually self-limiting for up to 10 weeks, and may rarely occur before intestinal symptoms. In this case report, a 23-year-old male patient with acute monoarthritis as the first symptom and diagnosed with Crohn's disease is presented, emphasizing that it should be kept in mind that conditions such as peripheral arthritis of unknown cause may be an extraintestinal symptom of IBD.

Keywords: Inflammatory bowel disease, Extraintestinal symptom, Peripheral arthritis, Monoarthritis, Ileitis.

Özet: İnflamatuar barsak hastalığı (IBH) sistemik bir hastalık olup, %50'ye varan oranlarda ekstraintestinal bulgular da eşlik eder. Ancak, olguların yalnızca %6 kadarında ekstraintestinal bulgular IBH tanısından önce otaya çıkar. Bulgular her zaman barsaktaki inflamasyon derecesiyle ilişkili değildir ve intestinal semptom olmadan da görülebilir. Kas-iskelet sistemi patolojileri %6-46 oranında görülür; artrit, ülseratif kolite göre kolonik tutulumlu crohn hastalarında daha sık olup; genellikle akut, asimetrik, 5'ten az eklemi etkileyen, sıklıkla diz eklemi gibi ek bir büyük eklemi içeren tip 1 artropati ve simetrik, metakarpofalangeal eklemler gibi 5 veya daha fazla küçük eklemi içeren tip 2 artropati olarak sınıflandırılabilir. Artrit eşlik eden IBH olgularının çoğunda tip 1 artropati gelişir ve oran yalnızca %5 kadardır. Bulgular çoğunlukla IBH aktivitesiyle ilişkilidir, genellikle 10 haftadan kısa sürede kendi kendini sınırlar ve nadiren intestinal semptomlar başlamadan önce ortaya çıkabilir. Bu olgu-raporun ile, ilk bulgusu akut monoartrit olan ve crohn tanısı konan, 23 yaşında bir erkek hasta sunularak, sebebi ortaya konamayan periferik artrit gibi durumların, inflamatuar barsak hastalıklarının bir ekstraintestinal semptomu olabileceği ayırıcı tanılarda akılda tutulması gerektiği vurgulanmıştır.

Anahtar Kelimeler: İnflamatuar barsak hastalığı, Ekstraintestinal semptom, Periferik artrit, Monoartrit, İleit.

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1. Introduction

Inflammatory bowel disease (IBD) is a systemic disease that is accompanied by extraintestinal findings in up to 50% of cases. However, extraintestinal manifestations are rarely detected before the diagnosis of IBD, accounting for 24% in adults and only 6% in the pediatric population (1,2). However, at younger ages, extraintestinal findings are less common (16%) and the rate of detection of extraintestinal findings before the diagnosis of IBD is higher (26%) (3). Extraintestinal findings may affect organs such as the skin, joints, eyes, mouth, and liver and are often associated with bowel disease. However, the findings are not always related to the degree of inflammation in the bowel and may be seen without intestinal symptoms (1,4). Musculoskeletal system pathologies are seen in 6-46%; approximately 14% are axial and 43% are peripheral involvement (5,6). Arthritis is more common in patients with Crohn's disease with colonic involvement than in ulcerative colitis; it can be classified as type 1 arthropathy, which is usually acute, asymmetric, affects less than 5 joints, and often involves an additional large joint such as the knee joint, and type 2 arthropathy, which is symmetric, involves 5 or more small joints such as the metacarpophalangeal joints. Most cases of IBD accompanied by arthritis develop type 1 arthropathy, and the rate is only about 5%. Findings may occur before the onset of intestinal symptoms, are mostly related to IBD activity, and are usually self-limiting in less than 10 weeks (7,8). Treatment for both gastrointestinal and extraintestinal findings includes various systemic anti-inflammatory drugs, corticosteroids, immunomodulators, biological agents such as anti-tumor necrosis factor (anti-TNF), occasionally antibiotic therapy, and surgical intervention when necessary (9).

In this case report, a 23-year-old male patient with acute monoarthritis as the first symptom and diagnosed with Crohn's disease is presented.

2. Case Report

A 23-year-old male patient with no history of any symptoms was admitted with complaints of pain and swelling in his right knee for 4 weeks. X-rays were normal. Joint puncture was performed and empirical ciprofloxacin 2x750 mg/day was started. However, there was no regression in the findings and after about 1 week, body temperature and acute phase reactants increased. On physical examination, blood pressure was 110/70 mmHg, pulse rate was 90, and body temperature was 38ºC. Except for local temperature increase, swelling, and hyperemia in the right knee joint, all other system examinations were normal. Blood test revealed leukocytes 15000 /mm3, neutrophils 73%, erythrocyte sedimentation rate 42 mm/h, and C-reactive protein 124 mg/L. Liver function tests, kidney function tests were normal, and ANA IFA, anti-dsDNA, and anti-CCP (cyclic citrullinated peptide) were negative. Leukocyte count was 140/mm3 and ADA (adenosine deaminase) level was 36 U/L in the joint fluid. PPD test was anergic, pathergy test was negative and fundus examination was normal. Joint fluid culture was negative. Empiric cefoperazone/sulbactam 2x2gr/day was started and regression in acute phase reactants was observed after antibiotherapy. However, diarrhea started on the 10th day of treatment and fever of 38ºC occurred again. Stool microscopy and culture were negative. Computed tomography revealed diffuse wall thickening in the ileal segments. Colonoscopy revealed diffuse edematous, erythematous, and white exudative ulcers in the terminal ileum mucosa. Biopsy revealed active ileitis. The patient was started on methylprednisolone 48 mg/day and azathioprine 50 mg/day with the diagnosis of Crohn's disease. In the second week of treatment, the patient's acute phase reactants regressed and his complaints decreased; he was discharged and his outpatient clinic check-ups continue.

3. Discussion

In Crohn's disease, extraintestinal symptoms are rarely seen before intestinal symptoms. Among these, arthritis is an extraintestinal symptom that can be seen in IBD cases with complications such

as large bowel involvement, pseudomembranous polyposis, perianal disease, massive bleeding, stomatitis, and uveitis, and is more common in Crohn's disease with colonic involvement compared to isolated small bowel involvement (5,7,10). Terminal ileum and colon are usually affected segments in Crohn's disease (11). Our case is rare in that it was diagnosed as Crohn's disease affecting the terminal ileum and it was acute peripheral monoarthritis that started approximately 5 weeks before intestinal symptoms, although the affected segment was the ileum.

Laboratory findings in IBD are nonspecific and joint fluid cultures are negative, and there are signs of mild to moderate inflammation with polymorphonuclear cell dominance. However, synovial fluid must be examined to exclude septic arthritis (12). In our case, who presented with arthritis, antibiotic therapy was considered important because septic arthritis could not be excluded until the diagnosis of IBD, and the treatment was rearranged with the diagnosis of IBD. Since proinflammatory activity in IBD is not limited to the gastrointestinal system, treatment of both gastrointestinal and extraintestinal manifestations is necessary (9). In this context, systemic antibiotics, steroids, surgery, biological agents, anti-TNFs are planned according to the clinical urgency and characteristics of each case (13). Additionally, effective treatment of IBD is often beneficial in controlling peripheral arthritis, although corticosteroid therapy leading to osteonecrosis and anti-TNF therapy leading to lupus arthropathy may mimic extraintestinal musculoskeletal findings (8,9).

4. Conclusion

IBD often presents with gastrointestinal symptoms and may be accompanied by extraintestinal symptoms. Rarely, extraintestinal symptoms may be the first reason for presentation. Our case, who presented with peripheral monoarthritis and was diagnosed with Crohn's disease involving the terminal ileum, is unusual in that the initial symptom was extraintestinal, that a single large joint was involved, and that the association of joint findings with ileal involvement was relatively low.

Based on this case report and the data, conditions such as peripheral arthritis, which have unknown causes, should be kept in mind in differential diagnoses as an extraintestinal symptom of IBD.

REFERENCES

1. Jose FA, Garnett EA, Vittinghoff E, Ferry GD, Winter HS, Baldassano RN, Kirschner BS, Cohen SA, Gold BD, Abramson O, Heyman MB. Development of extraintestinal manifestations in pediatric patients with inflammatory bowel disease. Inflamm Bowel Dis. 2009;15(1):63-8.
2. Vavricka SR, Rogler G, Gantenbein C, Spoerri M, Prinz Vavricka M, Navarini AA, French LE, Safroneeva E, Fournier N, Straumann A, Froehlich F, Fried M, Michetti P, Seibold F, Lakatos PL, Peyrin-Biroulet L, Schoepfer AM. Chronological Order of Appearance of Extraintestinal Manifestations Relative to the Time of IBD Diagnosis in the Swiss Inflammatory Bowel Disease Cohort. Inflamm Bowel Dis. 2015;21(8):1794-800.
3. Rogler G, Singh A, Kavanaugh A, Rubin DT. Extraintestinal Manifestations of Inflammatory Bowel Disease: Current Concepts, Treatment, and Implications for Disease Management. Gastroenterology. 2021;161(4):1118-1132.
4. Galbraith SS, Drolet BA, Kugathasan S, Paller AS, Esterly NB. Asymptomatic inflammatory bowel disease presenting with mucocutaneous findings. Pediatrics. 2005;116(3):e439-44.
5. Hammoudeh M, Elsayed E, Al-Kaabi S, Sharma M, Elbadri M, Chandra P, Abu Nahia N, Hammoudeh S. Rheumatic manifestations of inflammatory bowel diseases: A study from the Middle East. J Int Med Res. 2018;46(9):3837-3847.
6. Palm Ø, Moum B, Jahnsen J, Gran JT. The prevalence and incidence of peripheral arthritis in patients with inflammatory bowel disease, a prospective population-based study (the IBSEN study). Rheumatology (Oxford). 2001;40(11):1256-61.

7. Wang CR, Tsai HW. Seronegative spondyloarthropathy-associated inflammatory bowel disease. World J Gastroenterol. 2023;29(3):450-468.

8. De Keyser F, Elewaut D, De Vos M, De Vlam K, Cuvelier C, Mielants H, Veys EM. Bowel inflammation and the spondyloarthropathies. Rheum Dis Clin North Am. 1998;24(4):785-813, ix-x.

9. da Silva Júnior RT, Apolonio JS, de Souza Nascimento JO, da Costa BT, Malheiro LH, Silva Luz M, de Carvalho LS, da Silva Santos C, Freire de Melo F. Crohn's disease and clinical management today: How it does? World J Methodol. 2023;13(5):399-413.

10. Fragoulis GE, Liava C, Daoussis D, Akriviadis E, Garyfallos A, Dimitroulas T. Inflammatory bowel diseases and spondyloarthropathies: From pathogenesis to treatment. World J Gastroenterol. 2019;25(18):2162-2176.

11. Dolinger M, Torres J, Vermeire S. Crohn's disease. Lancet. 2024;403(10432):1177-1191.

12. Shahid Z, Brent LH, Lucke M. Enteropathic Arthritis. 2024 Apr 19. In: StatPearls [Internet: https://www.ncbi.nlm.nih.gov/books/NBK594239/]. Treasure Island (FL): StatPearls Publishing; 2025 Jan–. PMID: 37603630.

13. Gisbert JP, Chaparro M. Anti-TNF Agents and New Biological Agents (Vedolizumab and Ustekinumab) in the Prevention and Treatment of Postoperative Recurrence After Surgery in Crohn's Disease. Drugs. 2023;83(13):1179-1205.