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Endoscopic and Mucosal Healing in Crohn's Disease with Azathioprine

Crohn Hastalığında Azatioprin ile Endoskopik ve Mukozal İyileşme

Healing in Crohn's Disease with Azathioprine

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Mucosal healing is one of the main aims of therapy in Crohn's disease [1].Mucosal healing with Azathioprine has been reported in some previous studies, although with low rates. Anti-tumor necrosis factor (TNF)antibodies are more commonly associated with mucosal healing [2]. However, it is clear that anti-TNF antibodies are more expensive, with more common adverse events, and with a lack of long-term results [3]. Here we present a case of endoscopic and mucosal healing in a 2-year period with Azathioprine treatment in a young patient with Crohn's disease.

A 27-year-old woman was admitted to the hospital with diarrhea, oral aphthae, and skin eruptions for 6 months. Her laboratory examinations results were a sedimentation rate: 40 mm/h, C-reactive protein: 30 mg/dl and hemoglobin:11.2mg/dl. She did not have any genital ulcers and her pathergy and HLA B5 tests were negative for Behcet's disease. In gaitamicroscopy, leucocytes were present without any erythrocytes. She was going to the toilet with abdominal pain 2-3 times during the day and 1-2 times during the night. Abdominal ultrasound revealed a wall thickening on the hepatic flexural level reaching 8.5 mm. Fecal calprotectin level was determined as 250 µ/ggaita. Total colonoscopy revealed an ulcerated-fragile mass with approximately 3-3.5 cm diameter that did not allow passage through the terminal ileum(Figure 1a,b,c). Multiple biopsies for tuberculosis (TBC),polymerase chain reaction (PCR), and histological evaluation were obtained and all other parts of the colon were normal. The histopathological evaluation revealed focal active chronic inflammation with condensed lymphoid aggregates on crypt basal areas supporting the diagnosis of Crohn's disease (CD). Postero-anterior lung graph was normal and TBC, PCR, and sputum acid resistant bacteria evaluations were negative. MR-enterography was obtained to evaluate the small intestine and reported an increased wall thickness with a decrease in calibration in the terminal ileum. On the basis ofthese findings, the patient was diagnosed with CD and prescribed Deltacortril 40 mg/day, Azathioprine (AZA) 100mg/day, and 5-aminosalicylic acid(ASA) 3x1000 mg/day. At the end of the fourth month of treatment, her diarrhea and skin eruptions were resolved. In control colonoscopies at the end of the first year, the lesion was smaller and at the end of the second year, the terminal ileum was reached by intubation of the ileocecal valve;the previously-observed mass was completely absent in the cecum and all other colon segments were normal (Figure 2a,b,c). The histopathological evaluation of ileum and cecum biopsies revealed a mild inflammation with a high degree of mucosal healing.

AZA, an immunosuppressant drug, has been evaluated as being highly useful in the management of patients with CD [4]. In the treatment of CD, alleviation of the symptoms and signs of inflammation is often used as the goal of treatment. Evaluation of the responses of CD patients to treatment is thus based on the treatment's effect on the symptoms and the signs of inflammation. However, for CD, using these criteria does not seem to accuratelyreflectthe state of the intestinal mucosa [2].

Murakami et al. [2] evaluated the efficacy of AZA in patients with active and relapsing CD and the usefulness of endoscopy in theirevaluation. AZA was shown to cause endoscopic mucosal healing as well as having clinical efficacy in 53 patients. In the study, it was inferred that the efficacy of AZA therapy in CD patients is manifested clinically first and that mucosal healing is an effect that occurs later. Among 53 patients, treatment was rated as having induced complete remission in 22.6%, and as being effective in 41.5%.Our patient had complete remission with AZA for a 2-year period.Currently, AZA remains widely applied for the treatment of active and moderate CD to achieve or maintain remission, especially in developing countries, although its therapeutic effects appear slowly [5,6].

Although the rates of mucosal healing have not been high in previous studies with AZA, given its lower cost and fewer adverse events compared with anti-TNF antibodies, it should be considered as a first line therapy topromote mucosal healing in Crohn's disease. Therapy should be individualized for this chronic disease.

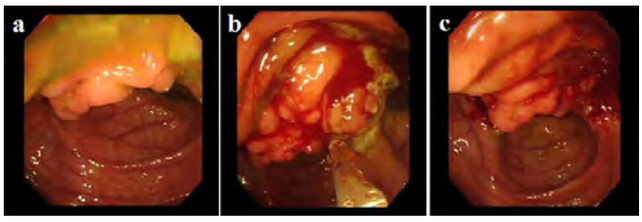


Figure 1. Endoscopic images of ileocecal valve before treatment (a,b,c)

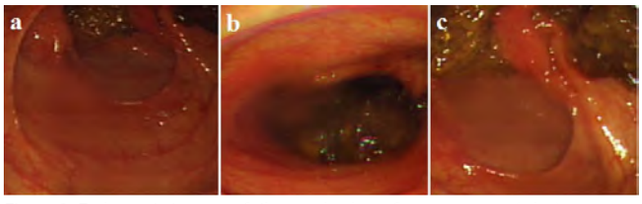


Figure 2. Endoscopic images of ileocecal valve after treatment (a,b,c)

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