

Acute visual field defect depending on occipital infarction in a patient with ulcerative colitis

Ülseratif kolitli hastada oksipital infarkta bağlı akut görme alanı defekti

Kadir ÖZTÜRK¹, Hakan DEMİRCİ¹, Yakup AKSOY², Hakan AKGÜN³

Departments of ¹Gastroenterology, ³Neurology, Gülhane School of Medicine, Ankara

²Department of Ophthalmology, Cyprus Military Hospital, Cyprus

Ulcerative colitis is an inflammatory bowel disease of unknown etiology characterized by chronic, diffuse mucosal inflammation of the large bowel. Thromboembolic complications can be seen in patients with ulcerative colitis. We presented here a newly diagnosed case of ulcerative colitis that was admitted with acute visual loss due to occipital infarction. Antiplatelet and mesalazine therapy was admitted. After treatment the complaint of visual field problem and mean deviation of visual field test was reduced. In conclusion, the acute visual field defect depending on occipital infarction is a very rare complication of inflammatory bowel disease.

Key words: Ulcerative colitis, thromboembolic complications, visual field defect

Ülseratif kolit etyolojisi bilinmeyen, kolonun kronik ve diffüz mukozal inflamasyonu ile karakterize inflamatuvar barsak hastalığıdır. Tromboembolik komplikasyonlar ülseratif kolit hastalarında görülebilir. Biz burada oksipital infarkta bağlı akut görme kaybı şikayetiyle başvuran, yeni tanı konulmuş ülseratif kolit hastasını sunuyoruz. Hastaya antiplatelet ve mesalazin tedavisi başlandı. Tedavi sonrası görme kaybı şikayetleri ve görme alanı testindeki ortalama sapma azaldı. Sonuç olarak, oksipital infarkta bağlı akut görme kaybı, inflamatuvar barsak hastalıklarında çok nadir görülen bir komplikasyondur.

Anahtar kelimeler: Ülseratif kolit, tromboembolik komplikasyonlar, görme alanı defekti

INTRODUCTION

Ulcerative colitis (UC) is an inflammatory bowel disease of unknown etiology characterized by chronic, diffuse mucosal inflammation of the large bowel (1). Extraintestinal manifestations and thromboembolic complications are seen more than one-third of patients with inflammatory bowel disease (IBD) (2). While the incidence of venous thromboembolic events such as deep venous thrombosis, pulmonary embolism and sinus venous thrombosis are estimated to be 0.26% per year in inflammatory bowel disease (IBD), arterial thromboembolism (TE) is seen less frequently (3). Most common arterial thromboembolic complications are ischemic heart disease, stroke, peripheral artery disease and mesenteric ischemia (4). We presented here a newly diagnosed case of UC that was admitted with acute visual loss due to occipital infarction.

CASE REPORT

A 32 year-old male patient was admitted with massive bloody diarrhea and abdominal cramps for ten days. There was no remarkable findings in physical examina-

tion. Laboratory results were normal except iron deficiency anemia (hemoglobin: 11.7 mg/dl), increased platelets levels (520.000 ml/mm³) and elevated sedimentation (47 mm/h). Based on colonoscopic and histopathologic findings, he was diagnosed as having severe ulcerative pancolitis and mesalazine (4000 mg per day) therapy was started. Five days after initiation of mesalazine treatment, although bloody diarrhea was decreased, the patient was suffering from acute visual field problem and headache. Arterial blood pressure and neurologic examination was normal. The patient was referred to ophthalmologist and right homonymous superior temporal quadrantanopia (mean deviation: -14.94 dB for left eye, mean deviation: -9.85 dB for right eye) was detected on visual field test (Figure 1). The infarction of left occipital area was found in cranial computerized tomography. Popliteal vein doppler ultrasound and ecocardiography were performed to exclude embolism and thrombus was no revealed in both tests. In genetic analyses, he had no factor V leiden and protrombin 20210G gene mutations.

Correspondence: Hakan DEMİRCİ

GATA, Gastroenteroloji Bilim Dalı, Etlik, Ankara

Phone: +90 304 20 00 • E-mail: hakandemircigata@yahoo.com

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Antiplatelet therapy (300 mg per day) was started in addition to mesalazine. 2 months later in control examination, the complaint of visual field problem was reduced. Also the mean deviation was reduced on visual field test (-11.58 dB for left eye, -7.56 dB for right eye) (Figure 2). Additionally contrast enhanced magnetic resonance showed chronic ischemic encephalomalacia in medial side of the left occipital lobe.

DISCUSSION

Cerebral arterial infarction is less frequently seen in course of IBD. Cerebral vascular events usually occur during acute exacerbation of IBD. The cause of association between acute cerebral arterial events and acute exacerbation of IBD remains unclear, but the events such as anemia, intravascular volume loss and increased levels of platelets, fibrinogen and factor V could predispose to hypercoagulability. Some of the patients with IBD may have genetic mutations such as prothrombin 20210G and factor V leiden, but Törüner *et al* reported no statis-

tical difference between IBD patients and healthy group in terms of these genetic mutations (5).

The latest American Stroke Association (ASA) and European Stroke Organisation (ESO) guidelines recommended that patients with cerebral arterial infarction should be treated with Aspirin within the first 24 to 48 h after stroke onset and for up to 9 months. IBD patients who receive long term Aspirin therapy should be followed closely for the exacerbation of IBD. The prognosis of IBD patients with cerebral arterial thrombosis is worse than IBD patients without cerebral arterial thrombosis (6,7).

In conclusion, the acute visual field defect depending on occipital infarction is a very rare complication of IBD, which is usually occurs during its acute phase, shortly after diagnosis. Antiplatelets therapy is recommended to prevent and treatment of cerebral arterial infarctions in IBD, but these patients should be carefully monitored for relapse of IBD.

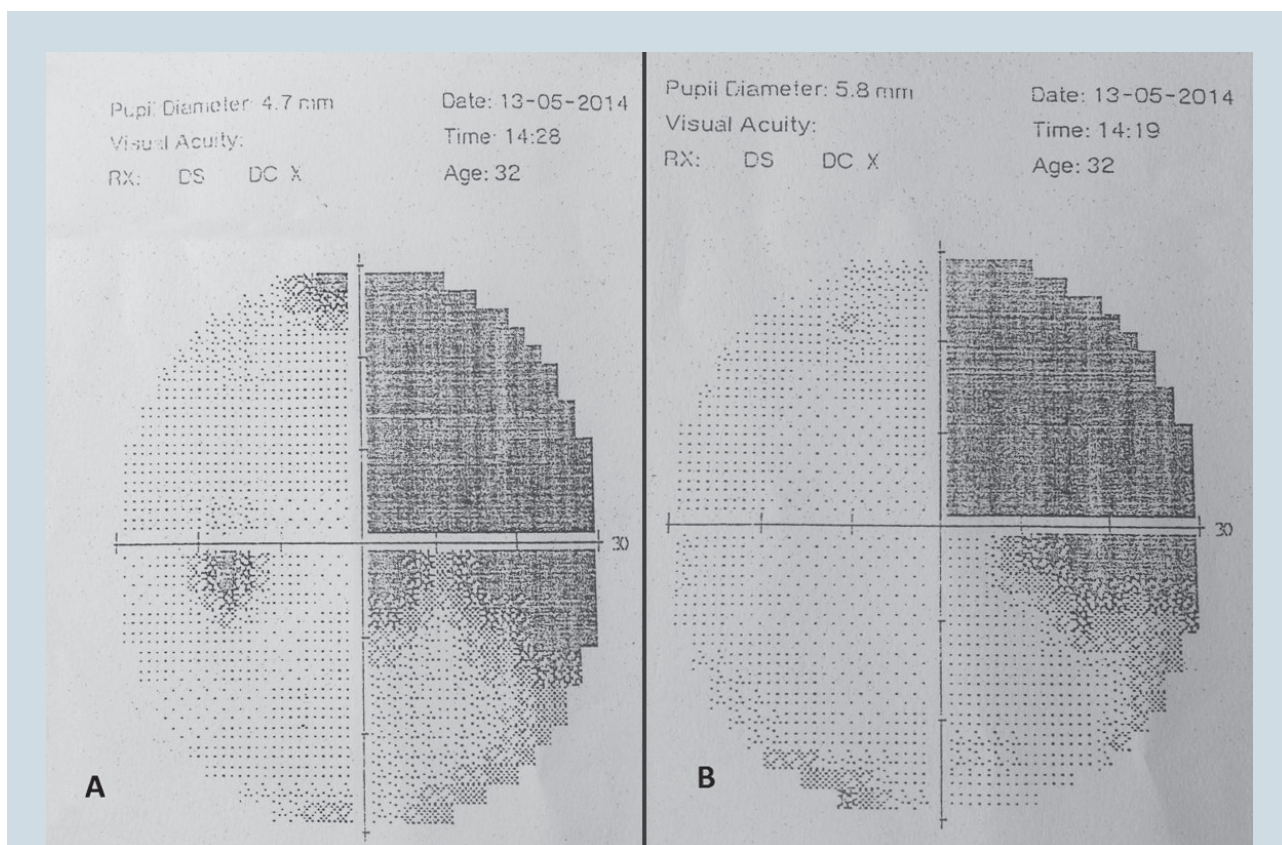


Figure 1. Visual field test on diagnosis. Right homonymous superior temporal quadrantanopia (mean deviation: -14.94 dB for left eye, mean deviation:-9.85 dB for right eye) was detected on visual field test.

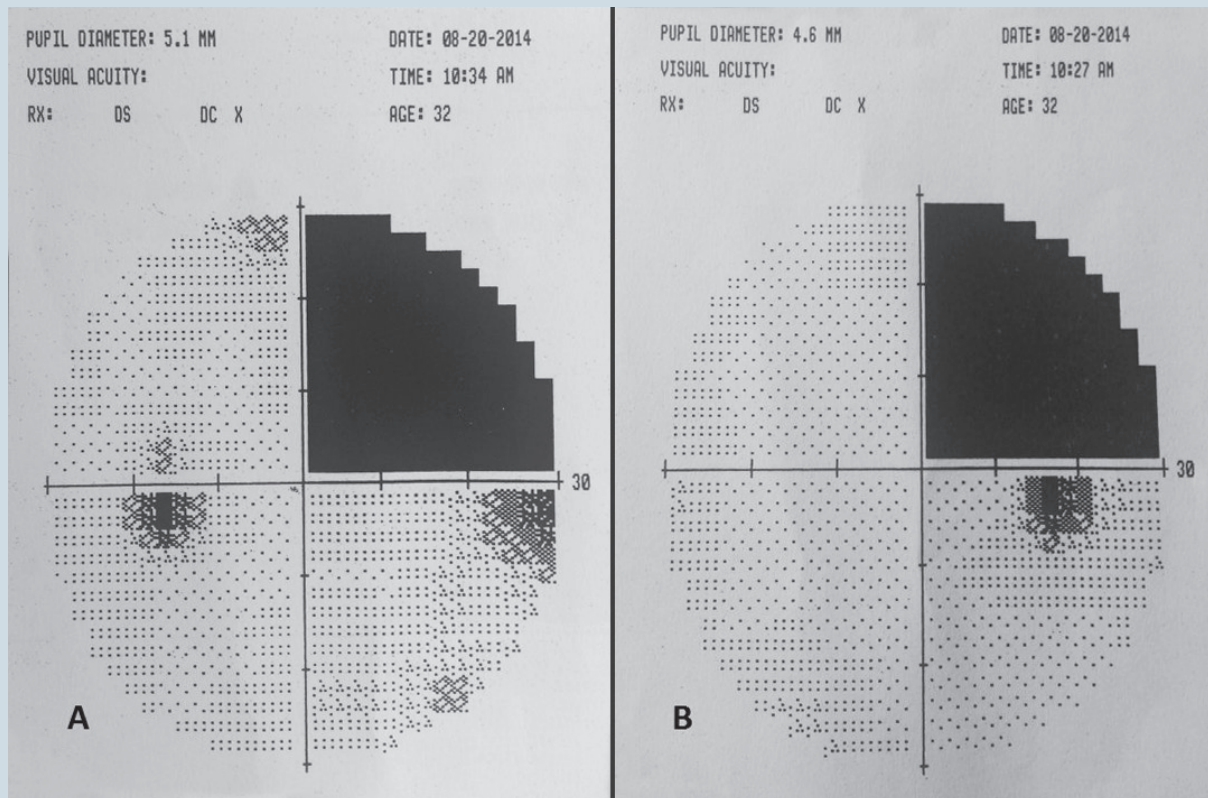


Figure 2. Visual field test after treatment. Mean deviation was reduced on visual field test in control (-11.58 dB for left eye, -7.56 dB for right eye).

REFERENCES

1. Kornbluth A, Sachar DB. Ulcerative colitis practice guidelines in adults: American College of Gastroenterology, Practice Parameters Committee. *Am J Gastroenterol.* 2010;105:501-523.
2. Bernstein CN, Blanchard JF, Rawsthorne P, Yu N. The prevalence of extraintestinal diseases in inflammatory bowel disease: a population-based study. *Am J Gastroenterol.* 2001;96:1116-1122.
3. Murthy SK, Nguyen GC. Venous thromboembolism in inflammatory bowel disease: an epidemiological review. *Am J Gastroenterol.* 2011;106:713-8.
4. Fumery M, Xiaocang C, Dauchet L, et al. Thromboembolic events and cardiovascular mortality in inflammatory bowel diseases: a meta-analysis of observational studies. *J Crohns Colitis.* 2014;8:469-79.
5. Toruner M, Erkan O, Soykan I, et al. Factor V Leiden, prothrombin G20210A and MTHFR gene mutations in inflammatory bowel disease. *Turk J Gastroenterol.* 2004;15:250-2.
6. Jauch EC, Saver JL, Adams Jr HP, Bruno A, Connors JJ, Demmaerschalk BM, et al. Guidelines for the early management of patients with acute ischemic stroke: a guideline for healthcare professionals from the American Heart Association/American Stroke Association. *Stroke* 2013;44:870-947.
7. Guidelines for management of ischaemic stroke and transient ischaemic attack. *Cerebrovasc Dis* 2008;25:457-507.