

## Letter to the Editor for ‘Neutrophil-to-Lymphocyte Ratio as a Marker in Patients with Non-arteritic Anterior Ischemic Optic Neuropathy’

Ramazan Özelve<sup>1</sup>, Fatih Çakır Gündoğan<sup>2</sup>

<sup>1</sup>Department of Ophthalmology, Gölcük Military Hospital, Kocaeli, Turkey

<sup>2</sup>Department of Ophthalmology, Gülnane Military Medical Academy, Ankara, Turkey

To the Editor,

We congratulate Polat et al. (1) for their study entitled ‘Neutrophil-to-Lymphocyte Ratio as a Marker in Patients with Non-arteritic Anterior Ischemic Optic Neuropathy’. The Authors investigated neutrophil to lymphocyte ratio (NLR) in non-arteritic anterior ischemic optic neuropathy (NAION) patients and concluded that NLR may be used as a marker of NAION.

The authors subdivided NAION patients and control subjects into groups of subjects without any systemic disease and subjects with diabetes mellitus (DM) and/or hypertension (HT). They compared NLR between the patients and control subjects and found that NLR was significantly higher in subjects with NAION without any systemic disease than the control subjects without any systemic disease. HT and DM are known to be risk factors for NAION (2). It is therefore possible that NLR changes in NAION patients may also be caused by the NLR changes in DM and HT. For this reason, we kindly ask the authors to divide the control group into two groups according to the presence or absence of DM and HT. Then, the authors may compare the following three groups: NAION patients, control subjects with DM and/or HT and control subjects without DM and/or HT. We think that the result of this analysis may explore the changes of NLR in NAION patients in a better way.

Finally, the authors reported that 4 of 45 cases of NAION were bilateral. As we know, bilateral NAION is a rare entity. For this reason, we believe that some of the cases may be cas-

es with infectious (viral) optic neuritis. We want to ask the authors how they differentiated NAION from possible cases of infectious optic neuritis.

**Ethics Committee Approval:** N/A.

**Informed Consent:** N/A.

**Peer-review:** Externally peer-reviewed.

**Author contributions:** Concept - R.Ö., F.C.G.; Design - R.Ö., F.C.G.; Supervision - F.C.G.; Resource - R.Ö., F.C.G.; Materials - R.Ö., F.C.G.; Data Collection and/or Processing - R.Ö., F.C.G.; Analysis and/or Interpretation - R.Ö., F.C.G.; Literature Search - R.Ö.; Writing - R.Ö., F.C.G.; Critical Reviews - F.C.G.

**Conflict of Interest:** No conflict of interest was declared by the authors.

**Financial Disclosure:** The authors declared that this study has received no financial support.

## REFERENCES

1. Polat O, Yavas GF, Inan S, Inan UU. Neutrophil-to-Lymphocyte Ratio as a Marker in Patients with Non-arteritic Anterior Ischemic Optic Neuropathy. *Balkan Med J* 2015;32:382-7. [\[Crossref\]](#)
2. Gundogan FC, Guven S, Yolcu U, Sari S, Sobaci G. Bilateral Simultaneous Nonarteritic Anterior Ischaemic Optic Neuropathy: Case Report. *Neuro-Ophthalmology* 2013;37:214-9. [\[Crossref\]](#)

## AUTHORS' REPLY

Onur Polat, Gülistan Fatma Yavaş, Sibel İnan, Ümit Übeyt İnan

Department of Ophthalmology, Afyon Kocatepe University School of Medicine, Afyonkarahisar, Turkey

To the Editor,

We want to thank the author(s) for their comments and contributions about our article “Neutrophil-toLymphocyte Ratio as a Marker in Patients with Non-arteritic Anterior Ischemic Optic Neuropathy (1). As the authors(s) mentioned, HT and DM are known to be risk factors for NAION (2). The change in NLR in subjects with NAION can be related with associated systemic disease like DM and/or HT. So, we subdivided both subjects with NAION and control group according to the existence of any systemic disease and compared the results with each other in each subgroup. In this subgroup analysis, we found that NLR changed significantly between groups without any systemic disease whereas no significant difference was found between groups with coexisting systemic disease. So, we think that subgroup analysis should be performed as we did in this study. As it is known, second eye is involved in 15% of subjects with NAION in 5 years (3). In our study,

subjects with the diagnosis of NAION were included retrospectively from clinical reports between the years 2008 and 2013. In this period, 4 of our subjects (8.9%) had bilateral NAION. In conclusion, further prospective studies are needed to evaluate NLR as a predictor for the assessment of visual acuity and prognosis in NAION.

Address for Correspondence: Onur Polat, Department of Ophthalmology, Afyon Kocatepe University School of Medicine, Afyonkarahisar, Turkey

Phone: +90 536 615 62 50 e-mail: dr\_onurpolatt@hotmail.com

## REFERENCES

1. Polat O, Yavas GF, Inan S, Inan UU. Neutrophil-to-lymphocyte ratio as a marker in patients with non-arteritic anterior ischemic optic neuropathy. *Balkan Med J* 2015;32:382-7. [\[Crossref\]](#)
2. Hayreh SS. Ischemic optic neuropathies - where are we now? *Graefes Arch Clin Exp Ophthalmol* 2013;251:1873-84. [\[Crossref\]](#)
3. Newman NJ, Scherer R, Langenberg P, Kelman S, Feldon S, Kaufman D, et al. Ischemic Optic Neuropathy Decompression TrialResearch Group. The fellow eye in NAION: report from the ischemic optic neuropathy decompression trial follow-up study. *Am J Ophthalmol* 2002;134:317-8. [\[Crossref\]](#)