

# The Neutrophil–Lymphocyte Ratio and Behçet Disease

Angiology  
2016, Vol. 67(3) 297  
© The Author(s) 2015  
Reprints and permission:  
sagepub.com/journalsPermissions.nav  
DOI: 10.1177/0003319715611805  
ang.sagepub.com



Nusret Acikgoz, MD<sup>1</sup>

We read the article by Ozturk et al with interest.<sup>1</sup> They assessed the relationship between carotid–intima media thickness (cIMT) and neutrophil–lymphocyte ratio (NLR) in Behçet disease (BD). Using an NLR count on admission may be useful for identifying these patients.

Behçet disease is associated with endothelial dysfunction and chronic inflammation. Some markers including interleukin 6, interleukin 1b, tumor necrosis factor  $\alpha$ , thrombomodulin, E-selectin, vascular endothelial growth factor, and total homocysteine have been reported as inflammatory indicators in BD.<sup>2–4</sup> Recently, it has been shown that the total white blood cell count (WBC) and its subtypes can be an indicator of systemic inflammation in inflammatory diseases such as BD.<sup>5</sup> Assessing WBC subtypes, including the NLR, involves a simple calculation and a cheap test compared with the above-mentioned inflammatory markers. Furthermore, in recent years, the NLR has been proposed as a surrogate marker for endothelial dysfunction and inflammation in several populations and has prognostic and predictive values.<sup>6</sup> The NLR has been widely used to determine the severity of inflammation in inflammatory diseases, malignancies, diabetes mellitus, hypertension,<sup>7</sup> and cardiovascular disease.<sup>8,9</sup>

In conclusion, the NLR seems to be a useful inflammatory marker and predictor of the activity of BD. However, more research is required to define its exact role in patient management.

## References

1. Ozturk C, Balta S, Balta I, et al. Neutrophil-lymphocyte ratio and carotid-intima media thickness in patients with Behçet disease without cardiovascular involvement. *Angiology*. 2015;66(3):291-296.
2. Balta S, Balta I, Demirkol S, Ozturk C, Demir M. Endothelial function and Behçet disease. *Angiology*. 2014;65(8):657-659.
3. Ozdemir R, Barutcu I, Sezgin AT, et al. Vascular endothelial function and plasma homocysteine levels in Behçet's disease. *Am J Cardiol*. 2004;94(4):522-525.
4. Acikgoz N, Ermiş N, Yağmur J, et al. Elevated oxidative stress markers and its relationship with endothelial dysfunction in Behçet disease. *Angiology*. 2011;62(4):296-300.
5. Balta S, Demirkol S, Celik T, et al. Association between coronary artery ectasia and neutrophil-lymphocyte ratio. *Angiology*. 2013;64(8):627-632.
6. Balta S, Celik T, Mikhailidis DP, et al. The relation between atherosclerosis and the neutrophil-lymphocyte ratio. *Clin Appl Thromb Hemost*. 2015. doi: 10.1177/1076029615569568.
7. Fici F, Celik T, Balta S, et al. Comparative effects of nebivolol and metoprolol on red cell distribution width and neutrophil/lymphocyte ratio in patients with newly diagnosed essential hypertension. *J Cardiovasc Pharmacol*. 2013;62(4):388-393.
8. Balta I, Balta S, Demirkol S, Ozturk C, Celik T. Neutrophil-to-lymphocyte ratio may predict subclinical atherosclerosis in patients with psoriasis. *Echocardiography*. 2014;31(9):1166-1167.
9. Balta S, Demirkol S, Unlu M, Arslan Z, Celik T. Neutrophil to lymphocyte ratio may be predict of mortality in all conditions. *Br J Cancer*. 2013;109(12):3125-3126.

<sup>1</sup> Department of Cardiology, Inonu University Faculty of Medicine, Malatya, Turkey

## Corresponding Author:

Nusret Acikgoz, Department of Cardiology, Inonu University Faculty of Medicine, Malatya, Turkey.  
Email: nusretacikgoz@hotmail.com