Neutrophil-to-lymphocyte ratio alone may not be a true indicator of the severity of acute pancreatitis

Alpaslan Tanoğlu 🕩, Tolga Düzenli 🕩

Department of Gastroenterology, Sultan Abdulhamid Han Training and Research Hospital, İstanbul, Turkey

Cite this article as: Tanoğlu A, Düzenli T. Neutrophil-to-lymphocyte ratio alone may not be a true indicator of the severity of acute pancreatitis. Turk J Gastroenterol 2019; 30(10): 937.

Dear Editor,

We read with interest the recently published article titled "Relationship between the neutrophil-to-lymphocyte ratio (NLR) in acute pancreatitis and the severity and systemic complications of the disease" by Kokulu et al. (1). In this article, the authors aimed to determine the relationship between NLR and the systemic complications and severity of acute pancreatitis. At the end of the article, the authors concluded that elevated NLR is associated with severe acute pancreatitis. We would like to thank the authors for their contribution to the literature.

NLR is used to determine systemic inflammation, and the laboratory test for NLR is globally available and inexpensive. Studies have shown that chronic hepatitis B and/or C infection, renal failure, diabetes mellitus, valvular heart diseases, acute coronary syndromes, thyroid functional abnormalities, metabolic syndrome, essential hypertension, and many inflammatory diseases may affect NLR (2-5). Thus, it would have been more relevant if Kokulu et al. (1) had mentioned these NLR-affecting factors while evaluating the relationship between NLR in acute pancreatitis and the severity and systemic complications of the disease. Furthermore, as an important limitation of the study, it would have been more objective if a large number of patients were included in their research. Moreover, medication may easily alter NLR, so it would have been useful if the patients were described in greater details in terms of their intake of anti-inflammatory drugs, antiviral agents, immunosuppressive drugs, and/or other medications. In addition, it would have been better if the authors had indicated the time elapsed between collecting the blood samples and measuring NLR because waiting period prior to analysis may affect this laboratory parameter (5).

We believe that the findings of Kokulu et al. (1) will lead to further studies concerning predictive role of NLR and severity of acute pancreatitis. However, it should be kept in mind that NLR alone may not be a true indicator of the severity of acute pancreatitis. Finally, we conclude that the severity of acute pancreatitis should be evaluated based on not only NLR but also other clinical, laboratory, and imaging variables.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept - A.T., T.D.; Design - A.T., T.D.; Supervision - A.T., T.D.; Resource - A.T., T.D.; Materials - A.T., T.D.; Data Collection and/or Processing - A.T., T.D.; Analysis and /or Interpretation - A.T., T.D.; Literature Search - A.T., T.D.; Writing Manuscript - A.T., T.D.; Critical Review - A.T., T.D.

Conflict of Interest: The authors have no conflict of interest to declare.

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

REFERENCES

1. Kokulu K, Günaydın YK, Akıllı NB, et al. The Relationship between the neutrophil-to-lymphocyte ratio in acute pancreatitis and the severity and systemic complications of the disease. Turk J Gastroenterol 2018; 29: 684-91. [CrossRef]

2. Kekilli M, Tanoglu A, Sakin YS, et al. Is the neutrophil to lymphocyte ratio associated with liver fibrosis in patients with chronic hepatitis B? World J Gastroenterol 2015; 21: 5575-81. [CrossRef]

3. Tanoglu A, Karagoz E. Predictive role of the neutrophil-to-lymphocyte ratio in patients with advanced hepatocellular carcinoma receiving sorafenib. Asian Pac J Cancer Prev 2014; 15: 1063. [CrossRef]

4. Stotz M, Gerger A, Eisner F, et al. Increased neutrophillymphocyte ratio is a poor prognostic factor in patients with primary operable and inoperable pancreatic cancer. Br J Cancer 2013; 109: 416. [CrossRef]

5. Tanoglu A, Karagoz E. Neutrophil and platelet-to-lymphocyte ratio: new predictors of dropout and recurrence after liver transplantation for hepatocellular cancer? Transpl Int 2014; 27: e80-1. [CrossRef]

Corresponding Author: Tolga Düzenli; tolgaduzenli@yahoo.com

Received: November 3, 2018 Accepted: November 15, 2018 Available online date: August 28, 2019

© Copyright 2019 by The Turkish Society of Gastroenterology · Available online at www.turkjgastroenterol.org DOI: **10.5152/tjg.2019.18856**