Reviewer’s report

Title: The Relation Between Neutrophil-to-Lymphocyte Ratio and Coronary Chronic Total Occlusions

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Reviewer: Ujjawal Gandhi

Reviewer’s report:

In this manuscript, Demir et al have conducted a small-sized, observational study comparing the NLR of stable patients with <50% occlusion (control), >50% occlusion (CAD group), or coronary total occlusion (CTO group). They concluded that high NLR is a marker of CTO.

There are several other closely-related studies looking at association of NLR and severity of CAD (Chen, 2014; Kaya, 2014; Kalkan, 2014). Chen et al included >3000 patients in their study and classified severity of CAD as low or high based on Gensini scores; however they did not comment about CTO. The strength of this manuscript is focus directly on NLR and CTO. However there are some comments/suggestions that can improve this manuscript:

Major Compulsory Revisions:

1. Perform a ROC analysis for NLR and the CAD group and check if there is any difference between the cut-offs for NLR between the CAD group and CTO group.
2. Perform correlation analysis between NLR and Gensini score to see if there is a positive correlation.

Minor Essential Revisions:

1. Authors state that “it is the first study investigating NLR between healthy persons, patients with CAD, and those with CTO”. The term “healthy persons” seems incorrect, as these patients also had symptoms of angina pectoris and/or had a positive stress test (as described in the start of the Patients and Methods section). Please clarify.
2. About the conclusion that “can be used by cardiologist as a screening inflammation tool to predict the presence of CTO before applying other expensive and invasive procedures.” – what difference in management do the authors predict a high CTO could make?
3. Please cite a reference for the modified Simpson rule.

Discretionary Revision:

1. Given that patients with severe renal/liver disease, malignancy, etc are excluded, the results should be taken with a pinch of salt; they should not be extrapolated to other patient populations with these common co-morbid...
conditions. This is also one of the limitations of the study.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests