Author’s response to reviews

Title: Neutrophil to lymphocyte ratio and platelet to lymphocyte ratio can predict the severity of gallstone pancreatitis

Authors:

Seung Kook Cho (lukechsk@gmail.com)
Saehyun Jung (taety@naver.com)
Kyong Joo Lee (smild123@yonsei.ac.kr)
Jae Woo Kim (jawkim96@yonsei.ac.kr)

Version: 1 Date: 08 Dec 2017

Author’s response to reviews:

Responses to the Editor
Date: Dec, 9th, 2017
To: Editor-in-Chief of BMC Gastroenterology
From:"Kyong Joo Lee, M.D." smild123@yonsei.ac.kr
Subject: Revision for BMGE-D-17-00463

Dear Prof. Zhao-Yan Jiang

First, we appreciate the editor’s and reviewers’ constructive comments. Also, we are pleased to have the opportunity to resubmit a version of our paper improved by your feedback.

We are submitting a revised manuscript that addresses the concerns raised by the reviewers. We have included the recommended changes and provide detailed point-by-point responses to all of the reviewers' comments.

We hope that our paper will be considered for publication because we believe it to have important implications for clinicians and expect that it will be of interest to the readership of Digestive Disease and Sciences.
We thank you for your time and look forward to your reply.

Sincerely Yours,

Kyong Joo Lee, M.D.

BMGE-D-17-00463

“Neutrophil to lymphocyte ratio and platelet to lymphocyte ratio can predict the severity of gallstone pancreatitis”

Point-to-point responses to comments by the Reviewer 1

First of all, we would like to thank Reviewer 1 for his/her comments, which helped us to improve this manuscript.

Claudio Luchini (Reviewer 1): I have read with great interest this manuscript about a very important topic, of importance in surgery as well as in laboratory medicine and pathology. This paper is well written, well presented and, above all, with important results.

I have only minor revisions to suggest before publication, congratulations to the Authors.

Here my points:


Response : Thank you for the valuable comments. We have added discussion about inflammation – cancer – biomarkers in the Discussion section.

Discussion Section, line 15, Page 9

- Also, pancreatic cancer can induce impairment of the patient’s immune system through systemic inflammation[1]. In this aspect, NLR and PLR can reflect the status of the immune system in patients with pancreatic cancer. Several studies have reported that NLR and PLR were correlated with poor overall survival in patients with pancreatic cancer[2, 3]. A recent study demonstrated that NLR was a predictive marker for the presence of invasive carcinoma
in patients with intraductal papillary mucinous neoplasm[4]. Therefore, NLR and PLR have a role as biomarkers in predicting pancreatic malignancy.

2. Please discuss also the topic of the potential application of such or similar methods to autoimmune pancreatitis.

Response : Thank you for the comment. NLR and PLR can be related to severity of autoimmune pancreatitis. However, autoimmune pancreatitis is a rare disease. Therefore, a multi-center study is needed to validate the role of NLR and PLR in autoimmune pancreatitis.

3. The Authors stated: "The diagnosis of AP was based on presence of 2 of the following 3 criteria: typical abdominal pain; serum amylase or lipase elevation ≥ 3 times the upper limit of normal; characteristic findings of AP on contrast-enhanced computed tomography, magnetic resonance imaging, or abdominal ultrasonography". Please use international criteria for the diagnosis and indicate these criteria clearly; it is not acceptable writing that the diagnosis was based on.....you have to indicate the reference that support this diagnosis and the method used, in this way it appears a subjective method to make the diagnosis.

Response : Thank you for the critical comments. We followed the international guidelines for the diagnosis of acute pancreatitis. The representative studies are listed below.

We have inserted the recent guideline (Classification of acute pancreatitis—2012 : revision of the Atlanta classification and definitions by international consensus.Gut. 2013) as a reference.


4. The Authors did not explain why their results are valid in only in gallstone AP only. I accept the fact that now it is not possible to provide all the reasons but the discussion on this point is not sufficient. The Authors should discuss more in depth this point and all the possible reasons, also expanding the references and better studying the pre-existing literature on the difference between alcohol and gallstone AP.

Response: We agree with the reviewer’s comments. The mechanisms of gallstone AP and alcoholic AP are different. In gallstone AP, cholangitis is often associated with AP. In alcoholic AP, liver disease is usually associated. In our results, the number of liver cirrhosis patients was larger and the platelet count was lower in alcoholic AP compared to gallstone AP. Thrombocytopenia is related to liver disease due to impaired platelet production and decreased hepatic synthesis of thrombopoietin [5]. Therefore, PLR can vary according to liver function as well as systemic inflammation.

Discussion Section, line 25, Page 8

- In alcoholic AP, NLR was a significant predictor, but PLR was not. This can be explained by the different mechanisms of alcoholic AP. Alcoholic AP is usually associated with chronic liver disease. In our results, the number of liver cirrhosis patients was higher and the platelet count was lower in alcoholic AP compared to gallstone AP. Thrombocytopenia is related to chronic liver disease due to impaired platelet production and decreased hepatic synthesis of thrombopoietin [5]. Therefore, PLR can vary according to liver function as well as systemic inflammation.

We would like to thank reviewer 1 again for his/her excellent comments, which have significantly improved the quality of the manuscript.
“Neutrophil to lymphocyte ratio and platelet to lymphocyte ratio can predict the severity of gallstone pancreatitis”

Point-to-point responses to comments by the Reviewer 2

First of all, we would like to thank the Reviewer 2 for his/her comments, which helped us to improve this manuscript.

Joachim C. Mertens, M.D. (Reviewer 2): The manuscript (BMGE-D-17-00463) examines the predictive value of neutrophil to lymphocyte ratio (NLR) and platelet to lymphocyte ratio (PLR) in acute pancreatitis (AP) of alcoholic or biliary origin.

The data of 243 patients enrolled in this study were collected prospectively in a tertiary center in Korea. NLR and PLR were compared to established AP severity scores and predictive lab values.

The topic of the present manuscript is interesting and novel as PLR has so far not been investigated as a predictive value in AP. Many of the currently available predictive scores in AP are cumbersome and of limited prognostic value. Therefore, an easy and reliable parameter is desirable.

The methodology seems straightforward albeit the number of included patients is rather small.

Analysis of NLR and PLR in alcoholic and biliary AP showed significance for severe courses of disease only in biliary AP but not in alcoholic. The significantly higher rate of cirrhotics in the alcoholic group and possible related thrombopenia may explain differences in the PLR in this group. This needs to be addressed in the discussion.

The resolution of figure 2 makes review almost impossible.

MAJOR COMMENTS:

1) The issue of liver disease related thrombopenia needs to be addressed in the discussion as this may influence PLR in the alcoholic AP group of patients.

Response: Thank you for the critical comments. The number of liver cirrhosis patients was significantly larger in the alcoholic AP group than in the gallstone AP group. Also, the platelet count was significantly lower in the alcoholic AP group compared to the gallstone AP group.
Therefore, PLR can vary according to liver function as well as systemic inflammation. This mechanism might explain why PLR is not correlated with AP severity in the alcoholic AP group.

Discussion Section, line 25, Page 8

- In alcoholic AP, NLR was a significant predictor, but PLR was not. This can be explained by the different mechanism of alcoholic AP. Alcoholic AP is usually associated with chronic liver disease. In our results, the number of liver cirrhosis patients was larger and the platelet count was lower in alcoholic AP compared to gallstone AP. Thrombocytopenia is related to chronic liver disease due to impaired platelet production and decreased hepatic synthesis of thrombopoietin [5]. Therefore, PLR can vary according to liver function as well as systemic inflammation.

MINOR COMMENTS:

Resolution of figure 2 is very low. Please review this figure

Response: We have reviewed Figure 2 and changed it to have better resolution.

We would like to thank Reviewer 2 again for his/her excellent comments, which have significantly improved the quality of the manuscript.

References


