

## Peer Review File

Article information: <http://dx.doi.org/10.21037/tcr-20-2459>.

### Reviewer A

Comment 1:

Design:

The authors described that they evaluated the value of EUS, however, the authors seemed to analyze the comparison of EUS + deep target biopsy vs gastroscopy + conventional biopsy.

Reply1: First, in addition to analyze the comparison of EUS + deep target biopsy vs gastroscopy + conventional biopsy, this study also did a comparison of T and M staging between EUS and surgical pathology. Because the current surgical treatment is not the first-line treatment of lymphoma, there are few surgical control cases and statistical analysis is impossible. Endoscopic ultrasonography with deep targeted biopsy can obtain pathological results in non-surgical situations and also change the treatment decisions of these patients, thereby avoiding surgery. Second, we also analyze the follow-up after treatment.

Comment 2:

Definition:

Please consider defining the “deep target biopsy”.

Reply2: “Deep target biopsy” means endoscopist performed endoscopic ultrasonography and selected the most significant thickening gastric wall for 5-8 directed excavation biopsies. Considering the Reviewers suggestion, we have modified our text as suggest. (see Page7 , line115)

Comment 3: It was difficult to understand what is positive criteria for EUS + deep target biopsy or gastroscopy + biopsy. This point should be defined more clearly in the method section.

Reply3: We made additions and modifications of evaluation criterion in the method section. (see Page 7 , line 132 )

Comment 4: The definition of “detection rate” should be described clearly in the method section.

Reply 4: Detection rate of PGL refers to PGL diagnosed by endoscopic ultrasonography with deep targeted biopsy or gastroscopy with biopsy. we replaced it with a more appropriate word "sensitivity".(see Page 7 , line 132; Page 11 , line 199 )

Comment 5:

RESULTS:

Tables should be considered to provide more important information, for example, the number of a positive diagnosis of EUS, gastroscopy, biopsy by EUS, and biopsy by gastroscopy.

Reply 5: For the diagnosis of conventional gastroscopic biopsy, ultrasound gastroscopy and targeted biopsy under ultrasound endoscopy, we have added a table to make it clear (see Page 25, line 438, Table 2)

Comment 6:

ABSTRACT:

The description “by gastroscopy or pathological evaluation” was difficult to understand. Did it mean several patients were diagnosed by the only gastroscopy and did not evaluate pathologically?

Reply 6: In the patients and methods section, we described “Seventy-nine of these cases were diagnosed with lymphoma either by endoscopic ultrasonography and biopsy pathology or by postoperative pathology.” We also made corresponding changes to the description in Abstract to make the expression more precise. (see Page 2 , line 37)

Comment 7: The authors mentioned about statistical analysis in the abstract, however, it was not needed. The authors should describe the most important information in abstract for journal readers.

Reply 7: We had deleted statistical analysis in the abstract according to the reviewer’s comments. (see Page 2 , line 40)

Comment 8: The word “statistical sensitivity” sounds strange. When we talked about diagnostic performance, just saying “sensitivity” always means the number of true positive divided by all patients with the disease.

Reply 8: We adopted the reviewer’s suggestion and replaced “statistical sensitivity” with "sensitivity".(see Page 2 , line 42)

Comment 9: The authors described “for Primary gastric non-Hodgkin’s lymphoma (Pgl) as ...” but Primary should be primary (lowercase letter).

Reply 8: We are very sorry for our incorrect writing. “Primary gastric non-Hodgkin’s lymphoma (Pgl)” were corrected as “primary gastric non-Hodgkin’s lymphoma (PGL)”. (see Page 2 , line 43)

Comment 10: The authors described that EUS + deep target biopsy was accurate than gastroscopy, however, it should be compared with gastroscopy + deep target biopsy (and described so) if the authors want to analyze the value of EUS.

Reply 10: For the diagnosis of conventional gastroscopic biopsy, ultrasound gastroscopy and targeted biopsy under ultrasound endoscopy, we have added a table to make it clear (see Page 25, line 438, Table 2)

### **Reviewer B:**

#### Major points

Comment 1: EUS was performed with deep targeted biopsy. Please indicate the type of needles and the detailed method, e.g. fine needle aspiration or fine needle biopsy. The diameter of the used needle, times of puncture or suction are technically important.

Reply 1: Currently primary gastric lymphoma is diagnosed mainly through histopathology and immunohistochemical examination of gastroscopy biopsy. Since PGL mostly originates in the submucosa, the biopsy under gastroscopy is often superficial, so it is difficult to diagnose gastric lymphoma (PGL) through tissue biopsy under gastroscopy. The amount of EUS-FNA specimens is limited, and it is difficult to meet the needs of histopathology and immunohistochemistry. In another small sample study of ours (in Chinese), we conducted 10 cases of FNA combined with flow cytometry (FCM). Seven cases of FCM showed light chain restricted expression, suggesting B cell NHL, which is consistent with the clinical final diagnosis; one case FNA cytology smears showed abnormal lymphocytes, but the FCM was negative, and finally biopsy pathology confirmed diffuse B. In 2 cases of FNA FCM, no evidence of malignancy was found, and the final diagnosis of DLBCL was confirmed by biopsy pathology. FCM can quickly detect the cellular immune phenotype. However, FCM and gene rearrangement are not routinely carried out, because they are expensive. So we performed ultrasound endoscopy and selected the most significant gastric wall thickening for 5-8 directed excavation biopsies in the current study.

Comment 2: Please present representative histological figure and immunohistochemistry, if available. Since pathological diagnosis is sometimes very difficult even for experienced pathologists.

Reply 2: We have added histological figure and immunohistochemistry figures according to the reviewer's comments. (see Page 27, line 445, Figure 2)

#### Minor points

Comment 1: In introduction, the STARD reporting checklist was followed. STROBE checklist was attached in the manuscript.

Reply 2: We have modified introduction about the followed STARD checklist.

Comment 2: CONSORT diagram is usually used for an RCT not for an observational study.

Reply 2: It is really true as Reviewer suggested that CONSORT diagram is not suitable for an observational study. We deleted CONSORT diagram.

Comment 3: Suekane's classification should be correctly referred (ref. 12?).

Reply 3: We are very sorry for our mistake. We have made correction according to the Reviewer's comments. (see Page 20 , line 385)

Comment 4: DCLBC should be typographic error in page 11.

Reply 4: We are very sorry for our incorrect writing . "DCLBC" were corrected as "DLBCL". (see Page 11 , line 221)

Comment 5: Please check endoscopic ultrasound and EUS are correctly used.

Reply 5: We checked that endoscopic ultrasonography and EUS was correct.

Comment 6: HPI is indicated somewhere?

Reply 6: We have added an explanation of Helicobacter pylori infection for "HPI" in the article. (see Page 8 , line 138)

Comment 7: The term "groupe" is right in the abstract?

Reply 7: We are very sorry for our incorrect writing . We replaced "groupe" with "group". (see Page 3 , line 52)

Comment 8: Figure legends were not shown in the manuscript.

Reply 8: We have added figure legends in the manuscript.