

Reviewer A

1. Lines 267-268 – This sentence is incomplete and unclear: Activity which appeared to be among the highest observed activity²⁶⁸ among the abovementioned mono-targeted anti HER2 regimen.

Reply 1: We removed “which” in this sentence. (See Page 8, Line 261)

2. Grammatical errors including on lines 302-303

Reply 2: We added the “full stop” at the end of sentence. (See Page 9, Line 297)

3. Lines 163-167 – describes use of MRI at baseline and at surgery – was this information used for anything in the trial? Did it change surgical management? Did the study compare MR imaging response to pathological response? Did the MRI serve any purpose for the trial or in determining which patients underwent lumpectomy versus mastectomy?

Reply 3: We did not compare MR imaging response to pathological response in this study. MRI was used to evaluate clinical response (ORR as a secondary endpoint) for the trial and also determine which patients would undergo lumpectomy versus mastectomy.

Although further larger trials would be needed, this phase II trial is a good starting point and could serve as a basis for other trials.

Reviewer B

- 1) First, I suggest the authors to indicate short-term efficacy and safety and a single-arm clinical trial in the title.

Reply 1: We have modified our title as advised. (See Page 1 Lines 3-4)

- 2) Second, the abstract needs some revisions. The background did not describe the clinical needs for this research focus and what the current knowledge gap is. The methods need to describe the measurements of efficacy and toxicity. The results need to describe the baseline clinical characteristics of the study sample. The current conclusion needs to be tone down

Reply 2: We have modified the abstract section as advised. (See Pages 2-3, Lines 54-55, 62, 65, 68-71, 79-81)

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- 3) Third, in the introduction of the main text, the authors did not analyze why neoadjuvant pyrotinib plus taxanes is potentially effective and safe for HER2+BC and why there is a need for this exploratory phase II trial.

Reply 3: We have modified this part as advised. (See Page 4, Lines 122-126)

- 4) Fourth, the methodology of the main text needs to describe the estimation procedures of the sample size of this study. In statistics, please indicate how the descriptive statistics were performed.

Reply 4: Sample size estimation was not performed since participants enrollment was based on patients' willingness. We stated this point in Page 4 Lines 134-136. Descriptive statistics were indicated in Pages 6-7 Lines 218-220.

- 5) Finally, please consider to cite several related papers: 1. Kioutchoukova I, Lucke-Wold BP. Pyrotinib as a therapeutic for HER2-positive breast cancer. *Transl Cancer Res* 2023;12(6):1376-1379. doi: 10.21037/tcr-23-333. 2. Hu W, Yang J, Zhang Z, Xu D, Li N. Pyrotinib for HER2-positive metastatic breast cancer: a systematic review and meta-analysis. *Transl Cancer Res* 2023;12(2):247-256. doi: 10.21037/tcr-22-1746. 3. Li Q, Wang Y, Zhu M, Gu Y, Tang Y. Clinical observation of neoadjuvant chemotherapy with pyrotinib plus trastuzumab in HER2-positive breast cancer: a cohort study. *Gland Surg* 2021;10(12):3389-3402. doi: 10.21037/gs-21-794.

Reply 5: The recommended references 1&2 were added in Page 4 Lines 109-111. Recommended reference 3 was already cited as reference 28 (See Page 15, Lines 473-474).