Author’s response to reviews

Title: Partial mastectomy using manual blunt dissection (MBD) in early breast cancer

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Author’s response to reviews: see over
Editor-in-Chief  
BMC Surgery  

Dear Executive Editor  
Dr. Tom Rowles  

Re: MS: 1568770131701210 “Partial mastectomy using manual blunt dissection in early breast cancer”  

We greatly appreciate your invitation for us to re-submit our article. We would like to thank you for a number of comments and suggestions for improvement in our manuscript entitled “Partial mastectomy using manual blunt dissection in early breast cancer” by Kashiwagi S et al. We have carefully considered the referee’s comments and have made point-by-point responses as described below, and highlighted in the revised manuscript.  

I hope this revised manuscript can again be considered for publication in the BMC Surgery.  

Sincerely,  

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We have responded to the comments from Referee #1, as follows:

Referee #1

Dear Mark Trombetta

⇒ Thank you very much for the careful review of the reviewer. We correct several points according to the descriptions by the reviewer, as follows.

Major compulsory revisions

1. Lines 57-59. The author states that safer and faster techniques must be developed, but partial mastectomy is a quick and safe operation. [Perhaps among the safest]. I would agree with his call for improved cosmesis, but the other two characterizations should either be removed or clarified significantly.

⇒ We appreciated your precious comment. We deleted mention about the safe and rapid in this paper.

New surgical techniques to maintain these cure rates, and provide good cosmetic results must now be developed. (Lines 57-58)

2. Was this an IRB approved study in your institution? Please note in the paper.

⇒ Thank you for the comment. We added the following sentences.

This study was performed in accordance with the Declaration of Helsinki and carried out with the approval of the Ethical Review Board of Osaka City University (#926). Sufficient explanation was provided and written informed consent was obtained from all study subjects for their involvement in this study and for the storage and use of their data. (Lines 86-90)

3. Lines 120-124: I did not notice that the specimen was oriented for the pathologist. Was that performed?

⇒ We are so sorry for our insufficient descriptions. Our operation do not do a perioperative diagnosis by the pathologists. We added the following sentences.

We hang a retention sutures to the resected tumor specimen so that the pathologists understand.
the nipple side at the time of a pathological diagnosis. (Lines 134-136)

4. **Question #1: What were the marginal measurements? This needs to be defined as it is a critical point.**
   ⇒ Thank you for your precious comment. We added the following sentences.
   The mammary excision stump assumed less than tumor proximity 5 mm positive and, in the case of positive, added radiation boost irradiation 10 Grays. In addition, about remarkable denudation of cancer nest, we did re-excision. (Lines 76-79)

5. **Question #2: How did you grade cosmesis? The paper is focused on cosmesis as a mainstay, yet there is no mention of this in the body of the paper. Did you use the “Harvard/NSABP/RTOG” system or something else? Who graded the cosmesis? This must be answered.**
   ⇒ Thank you for your detailed comment. We added the sentences about evaluation in the cosmesis.
   The affect cosmesis evaluation after Bp performed an evaluation by a breast surgeon and a patient, using "Four points of evaluations of Harvard" [7]. (Lines 79-80)
   By an evaluation in the cosmesis, more than “Good” were 198 cases (85.0 %) (Excellent n=86, Good n=112, Fair n=29, Poor n=6). (Lines 150-152)

6. **Did the use of the ink affect cosmesis? Were there longstanding effects of the ink used?**
   ⇒ In this study, We did not affect cosmesis by use of ink.

7. **The references should have no more than three authors followed by “et al”.
   ⇒ Thank you for your detailed review. We corrected references according to “Instruction for Authors”.

**Minor essential revisions**

8. **The figure explanations in the footnotes should be more concise. They are almost a rehash of the body of the paper.**
9. Line 132: Place a “space” between the word “deviation” and the number “28”.


11. Line 84: Please add “the” in front of the word mammary.

12. Line 104: What is the ”C” region? Please define.

⇒ Thank you very much for your comments. We corrected these points as suggested.

Overall an interesting paper and an excellent focus [cosmesis], but much revision is required.

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:** I declare that I have no competing interests
We have responded to the comments from Referee #2, as follows:

Referee #2

Dear Edward Chang

In the manuscript, the authors describe a technique using blunt dissection to free the breast tissue from the overlying skin and then completing the partial mastectomy through limited incisions either around the nipple areolar complex or from the incision made to perform the sentinel node biopsy. They have demonstrated a long history of this technique and in a large number of patients which excellent success rates. They demonstrate low risk of complications with minimal blood loss and relatively short operative times. Overall, the authors should be commended for their results.

⇒ Thank you very much for the careful review of the reviewer. We correct several points according to the descriptions by the reviewer, as follows.

Major Criticisms

How many patients ultimately were found to have node positive disease and required a completion axillary dissection?

⇒ Thank you for your detailed review. Thirty-one patients with a positive SN underwent further axillary lymph node dissection. We rewrote this sentence.

A positive diagnosis of SN metastasis as an indication for axillary clearance was defined as macrometastasis (i.e., tumor diameter >2 mm) in the SN. Micrometastasis (i.e., tumor diameter >0.2 mm, ≤2 mm or <200 tumor cells) and isolated tumor cells (ITC, i.e., tumor diameter <0.2 mm or <200 tumor cells) were determined as negative indications [8]. (Lines 81-85)

Macrometastasis was detected in 31 patients (13.3 %) of them, and all of those patients underwent axillary lymph node dissection. Micrometastasis was observed in 20 patients (8.6 %). (Lines 148-150)

How did the authors choose the size limitation for partial mastectomy for invasive disease to be 3cm? This seems to be an interesting cut off as this can be a T2 tumor and could be a stage II cancer. What about for patients with DCIS with larger areas of disease beyond 3cm?
Because I intended for the small Japanese woman of the chest, I was based on 3 cm not to cause transformation of the breast. DCIS was similar, too.

I imagine this technique may be easier to accomplish in smaller breast patients as occurs in the Asian population; however, I suspect this technique will be more difficult to achieve in larger breast patients or patients with ptosis. In these patients, the incision will not likely be able to be placed either in the axilla or around the nippler areolar complex. The authors should address the limitations of their incisions to the patient population.

Thank you for your detailed review. Your comment is quite right. We agree with you. We rewrote this sentence.

As for this study, an object does the small Japanese woman of the breast, but, in the case of larger breast patients or patients with ptosis, MBD may be difficult when I think about the distance from a skin incision to a tumor. (Lines 164-167)

The authors still need to use electrocautery to remove the remainder of the tumor following the superficial dissection. Did the authors consider sharp dissection of the entire partial mastectomy? Many surgeons in practice will infiltrate the breast with local anesthetic or a tumnescent type solution and then complete the partial mastectomy or even an entire mastectomy with sharp dissection alone. What do the authors feel is the benefit of their technique over the other techniques?

We appreciated your precious comment. We agree with you. We rewrote this sentence.

We examined this study in general anesthesia cases, but it is thought that MBD is possible under the local anesthesia [24]. (Lines 174-175)

The authors describe the use of local flaps for reconstruction, how many patients underwent reconstruction with a flap?

Thank you for the comment. We rewrote suggestion in the Results section.

The breast reconstruction by lateral tissue flap (LTF) was done in 18 cases (7.7 %). (Lines 146-147)

Particularly in small breast patients, removal of specimens even through a limited incision can
create significant contour deformities. For example, it would appear that the patient in the figures had a specimen removed that was 7cm x 4cm x 3cm. While the scars are quite acceptable, one would suspect that she will have hollowing in that area particularly following radiation.

⇒ Thank you for your detailed comment. We added the sentences about evaluation in the cosmesis.

The affect cosmesis evaluation after Bp performed an evaluation by a breast surgeon and a patient, using "Four points of evaluations of Harvard" [7]. (Lines 79-80)

By an evaluation in the cosmesis, more than “Good” were 198 cases (85.0 %) (Excellnt n=86, Good n=112, Fair n=29, Poor n=6). (Lines 150-152)

Minor Criticisms

The surgical technique for sentinel node biopsy can be shortened as these are well-described surgical techniques that detract from the focus of the paper which is the technique in performing the partial mastectomy with small incisions and a blunt manual superficial dissection.

Did any patients need to have a re-excision for close or positive margins?

⇒ We described the details of the re-excision.

The re-excision was performed in five cases (2.1 %) to save tumor stump exposure. (Lines 147-148)

The complications can be stated as (hematoma n=3, wound infection n=1) rather than (postoperative bleeding three times, wound infection one time)

⇒ We corrected these points as suggested.

There was little need for postoperative analgesia, and surgery was well tolerated with postoperative bleeding or wound infection (hematoma n=3, wound infection n=1). (Lines 152-154)

Level of interest: An article of limited interest

Quality of written English: Acceptable

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

Declaration of competing interests: I have no disclosures or competing interests
We have responded to the comments from Referee #3, as follows:

Referee #3

Dear Joon Jeong

Thank you very much for the careful review of the reviewer. However, the contents which gave “Review” to me do not accord with this article [“Partial mastectomy using manual blunt dissection in early breast cancer” MS: 1568770131701210]. Therefore, we have carefully considered the referee's comments (#1 and #2) and have made point-by-point responses as described below, and highlighted in the revised manuscript.

The authors investigated the predictor for the transition from DCIS to invasive breast cancer in Korean patients. They explained that preoperative features of association with upstaging are patients 40 years of age or younger at diagnosis, presence of palpable mass, USG guided method using 14-gauge needle, tumor size $\leq 20$ mm on USG, high grade DCIS on core biopsy, cribriform DCIS, comedo necrosis, presence of intraluminal calcification, estrogen receptor (ER) negativity, progesterone receptor (PR) negativity and triple negative subtype. However, multivariate analysis was not performed in this study. Furthermore, rationale for the objectives of the study lacks enough explanation and reference. Also, discussion is not well organized.

Major issues
1. Multivariate analysis using multiple logistic-regression analysis should be done to identify independent risk factors among the significant factors on univarite analysis.
2. In abstract, they described that 92 patients were diagnosed as DCIS in method. However, in results of abstract, they described that 174 patients were diagnosed as DCIS.
3. The authors described to find the predictor of upstaging in Korean patients in title of article. But they don’t mention anything about the difference and similarity between Korea and other country.
4. More references are needed to persuade readers to agree the objectives of the study. For instance, there is the study developing the nomogram to preoperatively find out the patients with underestimation of invasive cancer [1].


Minor issues
1. Because they explained diagnostic modalities in a total of 3rd~5th paragraph of introduction, it will be good to put together these paragraph.

Level of interest: An article of limited interest
Quality of written English: Acceptable
Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.
Declaration of competing interests: I declare that I have no competing interests.