

Peer Review File

Article information: <https://dx.doi.org/10.21037/gs-22-540>

Reviewer A

Comment 1: This is an interesting study for a topic with an increase of interest since several years but without large development. Can you explain why few development?

Reply 1: Thank you for pointing this professional question out. This phenomenon can be concluded by the following reasons: (1) endoscopic surgery as another minimally invasive surgical technology has been widely applied and developed in the field of breast cancer surgery; (2) the expensive price of robotic-assisted surgical equipment and high costs of robotic surgery could influence hospitals offering robotic surgery; (3) the surgical robots equipped in most hospitals don't support vascular anastomosis which is the best need for breast reconstruction after mastectomy.

Changes in the text: We have discussed the development of surgical robots in the field of breast cancer surgery. In order to achieve broad medical application in the field of breast cancer surgery, surgical robots with more complete functions and excellent prices need to be developed (see Page 9, lines 239 to 245).

Comment 2: This bibliometrics analysis is of interest but should be discuss in line with actual development and possible future development (or not, considering others conventional procedures for nipple sparing mastectomy, in ex pectoral implant with or without mesh).

Reply 2: Thank you for your suggestions. The actual development and possible future development of robotic surgery in the field of breast cancer surgery had been discussed in the revised manuscript.

Changes in the text: We have discussed actual development and possible future development of surgical robots for breast cancer surgery. Nowadays, robotic nipple-sparing mastectomy and on other hand for robotic latissimus harvest have been studied widely and made significant progress. The robotic nipple-sparing mastectomy with immediate reconstruction was safely performed with low nipple-areolar complex ischemia and few morbidities[24, 25]. Also, considering that the application of robotic latissimus harvest reduced hospital stays and superior aesthetic outcomes, robotic-assisted surgery should be allowed and studied further[26] (see Page 9, lines 259 to 264).

Comment 3: For robotic mastectomy, agreement for this procedure can be different in some countries: for exemple a recent agreement was provide since about one year in France for prophylactic mastectomy but not for breast cancer. This topic could be discussed in chapter Discussion. It is an important point wich represent a strong limitation to development of robotic mastectomy for breast cancer.

Reply 3: Thank you for your suggestions. Considering that the application of robotic mastectomy has no obvious advantages because the breast is not a hollow organ with less delicate surgery procedures, robotic mastectomy alone would be not allowed. However, robotic breast and reconstruction surgery should indeed be allowed.

Changes in the text: We have discussed the mentioned above to the development of robotic mastectomy for breast cancer. Considering that the application of robotic mastectomy has no obvious advantages because the breast is not a hollow organ with less delicate surgery procedures, robotic mastectomy alone would be not allowed. However, robotic breast and reconstruction surgery should indeed be allowed (see Page 9, lines 256 to 259).

Comment 4: Robotic latissimus harvested procedure differ from mastectomy and could be discuss in chapter Discussion.

An important reference is a consensus about robotic nipple sparing mastectomy (Lai et al in Annals of Surgery): this reference could be added for discussion and in line with collaboration between centers.

In conclusion, or at the end of discussion, it could be interesting to report appreciations and comments by authors on perspectives for development (or not) of robotic nipple sparing mastectomy and in other hand for robotic latissimus harvest.

Reply 4: Thank you for your suggestions. The applications of robotic surgery in the field of robotic nipple-sparing mastectomy and sophisticated breast reconstructive are two main issues.

Changes in the text: We have added the discussion of robotic nipple-sparing mastectomy and robotic latissimus harvest. Nowadays, robotic nipple-sparing mastectomy and on other hand for robotic latissimus harvest have been studied widely and made significant progress. The robotic nipple-sparing mastectomy with immediate reconstruction was safely performed with low nipple-areolar complex ischemia and few morbidities[24, 25]. Also, considering that the application of robotic latissimus harvest reduced hospital stays and superior aesthetic outcomes, robotic-assisted surgery should be allowed and studied further[26] (see Page 9, lines 259 to 264).

Reviewer B

Comment 1: This is a good method and summary for the present and future situation of Robotic breast surgery ,it is better than the meta-analysis report

Reply 1: Thank you for your review and consideration.

Changes in the text: No revision is needed.

Comment 2: some mis -placed sentence might cause confusion

Reply 2: Thank you for pointing this out. English language errors will be corrected

by extensive language editing for improving the quality of the manuscript.

Changes in the text: - have been replaced by the word “to” (See Page 2, line 37; Page 4, line 113; Page 5, 125 and 140).

The sentence “there were 2.3 million new breast cancer cases” has changed to “2.3 million new breast cancer cases occurred” (See Page 3, line 58).

The phrase “more and more” has been replaced with “an increasing amount of” (See Page 3, lines 63 and 64).

The word “incision” has been replaced with “incisions” (See Page 3, line 66).

The word “But” has been replaced with “However,” (See Page 3, line 67).

The “there are a variety of software” has been replaced with “a variety of software is” (See Page 3, line 73).

The word “these” has been replaced with “such” (See Page 3, line 74).

The sentence “The computer system searches the core database of the Web of Science, and the search time is set from the establishment of the database to May 15, 2022. Each article gets the following information: title, journal, publication date, author information and affiliations, and keywords and abstracts.” has been replaced with “The core database of the Web of Science was searched by the computer system, and the search time was set from the establishment of the database to May 15, 2022. Each article received the following information: title, journal, publication date, author information and affiliations, and keywords and abstracts.” (See Page 3, lines 85 to 87).

We have added “the” prior to “Web” (See Page 4, line 102).

The word “literatures” has been replaced with “literature” (See Page 4, lines 106, 114 and 115; Page 7, line 203; Page 10, line 284).

The “of” has been replaced with “between” (See Page 5, line 124).

The word “obviously” has been deleted (See Page 5, line 131).

The institute “European Inst Oncol” has been replaced with “European Institute Oncology” (See Page 5, line 139).

The institute “Canada Ctr Rech” has been replaced with “CHU de Québec–Université Laval” (See Page 5, line 140).

The institute “Johns Hopkins Univ” has been replaced with “Johns Hopkins University” (See Page 5, line 145).

The institute “Tech-Univ-Munich” has been replaced with “Technical University of Munich” (See Page 5, line 145).

We have added “the” prior to “Asian” (See Page 6, line 171).

We have added “the” prior to “International” (See Page 6, line 172).

We have added “a” prior to “bibliometric” (See Page 7, line 203).

The sentence “it is found that the annual publication volume in phase I (2008-2015) is small” has been replaced with “the annual publication volume in phase I (2008-2015) is found to be small” (See Page 8, lines 209 and 210).

The word “the” prior to “research” has been deleted (See Page 8, line 219).

The phrase “there is little international cooperation” has been replaced with “little international cooperation is found” (See Page 8, line 223).

The phrase “there is less international cooperation” has been replaced with “less

international cooperation is found" (See Page 8, line 229).

The word "robot" has been replaced with "robots" (See Page 9, line 252).

The sentence "there may be some omissions in the included data" has been replaced with "some omissions may exist in the included data" (See Page 10, line 281).

Comment 3: line 123 : the number of publications is more than 10 ,this sentence seem not related to the this paragraph

Reply 3: Thank you for pointing this out. This sentence had been deleted.

Changes in the text: The sentence of "the number of publications is more than 10" has been deleted (See Page 5, line 124).