Reviewer's report

Title: Why do Asian-American women have lower rates of breast conserving surgery? Results of a survey regarding physician perceptions

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Reviewer: Andrea Bordoni

Reviewer's report:

This paper concerns the different use of breast conserving surgery (BCT) and radical mastectomy (MRM) by ethnicity, described by some studies in California and in US overall. Asian women with early stage breast cancer are more likely to receive a MRM than White women. Many factors could play a role in producing the observed treatment pattern: 1) clinical-pathological diagnostic indicators as consequence of different prevention patterns; 2) breast cancer subtypes distribution by ethnicity (Luminal A, Luminal B, Erb-B2 +, Basal-Like) and related different tumour characteristics at the diagnosis (such as tumour size, in situ cancer component, etc...); 3) clinical contraindication to BCT; 4) patient-provider communication; 5) language barriers; 6) physician and patients’ cultural factors; 7) other factors.

The authors proposed a survey addressed to physicians, where the goal is to detect possible explanation of the observed reduced use of BCT in Asian women. They focused on the decision-making process regarding Asian patient.

General consideration:

The question posed by the authors is well defined. Some limitations of the work are clearly stated. The report is medium-length, but fluent sentences are lacking. The manuscript surely needs important revision to be published. Particularly, the section of “Methods” is incomplete and, as consequence, unclear. A question is pending: seeing that the authors affirmed that this report is an exploratory paper of a larger pilot study, maybe it is too early to be published. Probably, additional results will contribute to improve the study contents and results.

Furthermore, since data concerning physicians are collected through the Cancer Registry, authors could have performed a linkage with other important information routinely collected in the cancer registry, such as tumour stage, tumour size, age of patients. I finally suggest to directly match the ethnic distribution of patients to the one of physicians, in order to assess a possible correlation.

Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)

Page 2, line 1-15: the abstract section would appear clearer to the reader if divided into the four classical sections: introduction, methods, results and
A comprehensive description of the population covered by the concerned Cancer Registry is needed, particularly the ethnical composition, urban/rural distribution, access to health care system.

Page 4, 18-23: the paragraph “Selection of Physicians” is not clearly structured and need to be deeply revised: how many breast cancer cases have been selected from the Cancer Registry for the period 2002-2004 to identify physicians? Only incidence cases or also prevalent cases have been considered? Can this selection be considered on population-based level? Which speciality types of physicians have been considered? Attending and follow up physicians could play a different role in the decision-making process; how are they considered and weighted in the analysis? What does the sentence “proportionally treated the Chinese…” means?

When Asian physicians are compared to non-Asian physicians, are the two groups weighted by age, specialities, etc...?

Page 6, line 1-4: the paragraph concerning “Statistical Analysis” has to be reviewed and surely developed; add statistical procedures used in the study (method of sample selection, age/ethnicity matching process, logistic regression, etc...)

Page 5 line 19-20: “other characteristics”; which one? better explain.

Page 8, line 2-3: “anectodal conversation with physician…”. Delete “anectoda conversationl”, which is not a proper expression for a scientific paper and add references..

Page 9, line 14-17: “Additionally, because physicians were selected based on the proportion of Chinese, Vietnamese, or Filipina patients treated, and given the heterogeneity among Asian subgroups, these results may not be applicable to patients of other Asian ethnicities”. Describe the percentage of attending physicians with respect to the considered ethnicities. Moreover, and as consequence of this evidence, maybe the current study title is misleading;

Page 9, line 22-23 and Page 10, line 1-5: seeing that the authors correctly reported that “…these cultural factors require additional research for a more complete understanding of their role and significance,…”, and considering that the current report described “part of a larger pilot study” and was designed to be “exploratory in nature”, the promotion of “recommendations” directed to physicians seams at least prematurely at this stage.

Table 3 (second section “Most important factors for stage I and II patients treated with BCT over last 2 years”). 87.5 % of physicians considered important “patient’s attitude toward preserving the breast”; this result have to be commented in the discussion section.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
Since this study has to be considered as a part of a larger pilot study, authors could spend in the “Introduction” some words on describing it and could explain the link between the present exploratory report and the larger pilot study.

Page 2, line 1-15: the abstract is poor regarding the frequency of reporting numeric results. At line 12 sentence like “Physician also cited…” and at line 13 “Asian physician were…” have to be supported by numeric results accompanied by p-value and/or confidential interval. In addition, concerning line 13, seeing that logistic regression has been performed on a small sample resulting in a very large confidential interval (correctly underlined by the authors), this result could be omitted in the abstract.

Page 3, line 14-16: not clear, reference should be added

Page 3, line 18-20: “yet the few studies….has not founded….tumour characteristics to be related to the ethnic treatment patterns”. I propose to write a sentence like “some studies have showed clear different tumour characteristics by ethnicity, but probably not enough to justify the observed difference in treatment patterns.”

Page 4 line 9: add “process” after “decision-making”

Page 4 line 8-9: “patients' preferred role”: what is the meaning of “role”? Better explain

Page 4 line 21: add “breast” after “each”

Page 5, line 19: what is meant with “….or other characteristics were not available for assessing whether respondents were different from non-respondents”? Once you know the name of the physician, is it possible to explore at least the residency speciality of the concerned not respondent physician?

Page 8, line 3-6: “… prior studies have not shown difference in tumour size distribution at the diagnosis between Asian and non-Asian”. Better “other studies have shown difference in clinico-pathological prognostic factors at the diagnosis between different ethnicities, but probably not enough to explain the observed different use of BCT and MRM (Gelber R.M et all, Goel R.P. et all, 2006).

Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

Page 10, line 9-11: “finally, if travel is a barrier…” the consideration is interesting particularly in relation to post surgical radiotherapy, but less in the conclusion paragraph, since a comprehensive overview of the causes of the increased use of MRM versus BCT in Asian is still lacking in the present paper (no analysis of distance between patients home treatment facilities has been performed in the current study or patients preference toward surgery and radiotherapy, etc...)

Page 10, line 6-8: is the question “similarly, when Asian…..” really a result of the current study to be considered in the conclusion?
Level of interest: An article of importance in its field

Quality of written English: Acceptable

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

Declaration of competing interests:
I declare that I have no competing interests