

Point-by-point response

Reviewer #1:

There are some **minor grammatical issues** that can be easily corrected.

I have one question / suggestion about the results. **Other than aggressive behavior that is most probably attributable to advanced stage the marital status is a significant determinant of the disease. The authors should at least discuss the probable explanatory hypotheses. Since the majority of these unmarried patients are female, there can be a correlation with estrogen exposure. Is it possible to know for sure, those unmarried women are also nullipar?**

A: Thanks for your suggestion. Based on our study, unmarried marital status is a significant determinant of the GBMAC, and the majority of the unmarried patients are female. We also hypothesize there can be a correlation between GBMAC and estrogen exposure. However, even though we searched a lot of studies, no study explored the relationship between GBMAC and estrogen exposure. Moreover, according to the SEER database, we cannot know if those unmarried women are nulliparous. Furthermore, retrospective data collection may have been subject to information bias. Therefore, more research is needed to verify this speculation. We discussed our hypothesis in Paragraph 3 in Discussion section.

Reviewer #2:

JOURNAL'S GUIDELINE

- You should follow the journal's style; for example, the title should be no more than 18 words, or abstract should not be less than 35.

A: We thank the reviewer for the advice. We modified the title and abstract. According to this suggestion, we also modified our article's style to follow the journal's style. Please check these parts in the revised manuscript.

ABSTRACT

- Please explain the abbreviation HR.

A: We thank the reviewer for the advice. HR is the abbreviation of hazard ratio. We explained the abbreviation HR in abstract section. Please check this part in the revised manuscript.

INTRODUCTION

- You should add more studies relevant to your topic recently published.

A: Thanks for your advice. We added more recent studies and modified the Introduction section. Please check the reference (4)(8)(9)(16)(17)(18) in the revised manuscript.

- Please state the clinical impressions of your study in the last paragraph of the Introduction. What problems remain unanswered? What are questions responding to?

A: Thanks for your advice. We revised and rewrote the last paragraph of the Introduction. Please check this part in the revised manuscript.

METHODS

- Please report your manuscript as per the STROBE guideline.

A: Thanks for your advice. We revised our article following the STROBE guideline.

- Please explain the abbreviations in all figures and tables of the manuscript (e.g., in footnotes).

A: Thanks for your advice. We explained the abbreviations in all figures and tables of the manuscript in footnotes. Please check this part in the revised manuscript.

- In the patient selection section, it is not clear why the study period was limited to patients diagnosed between January 2010 and December 2017. It would be helpful to provide a rationale for this.

A: Because the SEER database began recording sites of metastasis at initial diagnosis in 2010, we set the starting point of our study as 2010. And the latest data update was on December 31, 2017. That is the reason why this study period was limited to patients diagnosed between January 2010 and December 2017.

- Does your study have an approved code for the ethics?

A: As the SEER database is publicly available and de-identified, therefore, the ethical approval was exempted by the ethics committee of our hospital.

DISCUSSION

- What were your strength points?

A: Due to the infrequency of GBMAC, only a few studies explored its clinical characteristics and prognoses. The SEER database, as a large database, could provide a comprehensive and large sample size cohort of cancer patients. To the best of our knowledge, there is still no study systematically analyzing the clinical characteristics, survival outcomes, and prognostic predictors of GBMAC based on the SEER database. Our research took advantage of the large data set from the SEER database to explore the clinicopathological characteristics and prognostic factors for GBMAC, representing the first and the largest comparative analysis of GBMAC to date.