

**Reviewer A**

The abstract, title, introduction, material and methods, as well as the results and discussion are well designed and wrote. However, the topic is not novel and the number of cases is too small. The ROME system is a good one and maybe you could compare the monetary aspect, but only the statistical results comparing their results do not provide enough information to publish it in this journal. Furthermore, you could add some data about the follow-up role of these biomarkers. I do not understand why in Table 1 are OC n= 82 and in Figure 1 are n=107, this should be clarified. There are too many supplementary tables, I think there should be summarized.

Comment 1: The topic is not novel and the number of cases is too small.

Reply 1: Thank you for your valuable comments. Regarding the novelty of the article, based on your suggestions, we have included patient follow-up results and analyzed the relationship between Mindray tumor markers and patient follow-up outcomes. As for the small sample size, the reason is the low incidence of ovarian cancer, with few samples meeting the inclusion and exclusion criteria. The ROMA index has been validated with an AUC efficiency of over 0.90. Using the professional sample size calculation software PASS, we set Alpha to 0.05, Power to 0.9, AUC0 to 0.8, AUC1 to 0.9, and the ratio of positive to negative samples to 1:2, calculating the required number of experimental group samples to be 85 and control group samples to be 170. Therefore, we ultimately only included these samples, and future research will increase the sample size.

Changes in the text: We did not increase the sample size but added some follow-up data to enhance the novelty of the article. (see Page 3, line 79; Page 6, line 156; Page 7, line 210; table 1; table S3)

Comment 2: The ROME system is a good one and maybe you could compare the monetary aspect. Furthermore, you could add some data about the follow-up role of these biomarkers.

Reply 2: Thank you for your valuable feedback. We appreciate your emphasis on the monetary aspects of the two detection methods. Our study primarily focused on clinical efficacy, and we do not have cost comparison data from the two manufacturers, it is not appropriate for me to directly compare the economic benefits of the Mindray system with those of Roche. We have overcome many challenges to successfully collect follow-up data and analyze the follow-up efficacy of the Mindray system, and these results are presented in the manuscript, among the patients who experienced recurrence, we observed a significant increase in both HE4 and CA125 levels compared to baseline using the Mindray system. We hope that our comprehensive analysis supports the evaluation of the Mindray detection system.

Changes in the text: We added some follow-up data to enhance the novelty of the article. (see Page 3, line 79; Page 6, line 156; Page 7, line 210; table 1; table S3)

Comment 3: I do not understand why in Table 1 are OC n= 82 and in Figure 1 are n=107, this should be clarified.

Reply 3: I am sorry, the number of cases in table 1 is indeed wrong. I confused it with another ongoing study. 107 cases are the number of samples tested simultaneously with the Mindray and Roche systems. It has now been corrected.

Changes in the text: We have modified our text as advised (see table1).

Comment 4: There are too many supplementary tables, I think there should be summarized.

---

Reply 4: Thank you for your feedback. We have revised the tables accordingly, including presenting the data from Table 4 directly in the text and removing Table 4, merging Table S1 into Table 2, and merging Table S3 into Table S2 and named Table S1.

Changes in the text: We have modified the tables as advised (see table2, table S1, figure 3)

### **Reviewer B**

I read with great interest the Manuscript titled “The diagnostic performance of the Mindray system in detecting CA125 and HE4 for patients with ovarian cancer”, topic interesting enough to attract readers' attention.

Authors should clarify some point and improve the discussion citing relevant and novel key articles about the topic:

The gold standard of ovarian cancer treatment is surgical therapy with no tumor residual and platinum-based chemotherapy regimens. In patients with advanced ovarian cancer, it's essential to evaluate the morbidity and feasibility of the various therapeutic strategies, considering the risks and benefits of this complex surgical procedure and the possible other factors that can help obtain a more adequate therapeutic approach. Considering the results of this study, the authors should discuss solid evidence about this topic. I would be glad if the authors discuss this important point, referring to PMID: 32779050 and 32036457

Considering all these points, I think it could be of interest to the readers and, in my opinion, it deserves the priority to be published after minor revisions

Comment 1: In patients with advanced ovarian cancer, it's essential to evaluate the morbidity and feasibility of the various therapeutic strategies, considering the risks and benefits of this complex surgical procedure and the possible other factors that can help obtain a more adequate therapeutic approach. Considering the results of this study, the authors should discuss solid evidence about this topic.

Reply 1: Thank you for your valuable revision suggestions. We can indeed add a discussion regarding ovarian cancer treatment, two articles (PMID: 32779050 and 32036457) are cited as references 10,11. Additionally, to enrich the content of the article, we have also supplemented the treatment follow-up results of the Mindray system and presented them in the text.

Changes in the text: We have modified our text as advised (see Page4, line 110-120)