

Dear Reviewers,

Thank you very much for taking the time to review this manuscript. We appreciate all your generous comments and suggestions. Please find my itemized responses below and my revisions in the resubmitted files.

Reviewer 2:

1. General comments:

The manuscript says that it is undesirable to continue pregnancy with Eisenmenger's syndrome because the mortality is extremely high. However, as the authors stated in the manuscript there are reports of "Patients with congenital heart disease correction achieved normal pregnancy and successful delivery outcomes." If the authors take into account of the severity of pulmonary hypertension, outcome of pregnancy, and mortality of patients, the manuscript would be quite different from the submitted one.

Response: We have made appropriate modifications to the inappropriate wording in the article. What we wanted to express was, "In recent years, advanced medical technology has allowed congenital heart disease patients to undergo corrective surgery, and some patients have decided to conceive. Although there have been a few successful births, it is still recommended to avoid pregnancy after cardiac correction due to the high rates of mortality and maternal complications." (Rudiene V, et al: Pregnancy in congenital heart disease, complicated by pulmonary arterial hypertension: a challenging issue for the pregnant women, the foetus, and healthcare professionals. Medicina 2022; 58: 476.)

2. The authors should clearly state if the PDA of the patient completely closed or not after transcatheter interventional procedure.

Response: The patient stated that the PDA was completely closed after the transcatheter interventional procedure.

3. I do not think expert opinions are suitable for case report. You should state your own scientific opinion.

Response: We have deleted this part.

Specific comments:

4. **Abstract** If you describe the degree of heart failure of the patient by classification of

the New York Heart Association, it would make readers understand the severity of the heart failure of the patient

Response: We have added this content to the article. The patient had New York Heart Association (NYHA) grade II heart failure.

5. Conclusion: I do not think the descriptions of your case summary are able to support your conclusion, because your case summary and conclusion were not interrelated. The conclusion should be based on the descriptions in case summary

Response: We agree with your opinion and have made relevant changes. Our experience in this case suggests that successful outcomes are possible in pregnant patients with ES who terminate their pregnancy under epidural anesthesia and intensive monitoring.

6. **Introduction:** You stated that “This is the first case report to describe a pregnant patient with Eisenmenger’s syndrome after cardiac surgery;” however, Rudiene et al reported at least a pregnant woman who underwent ligation of the PDA and delivered a healthy newborn (Rudiene V, et al: Pregnancy in congenital heart disease, complicated by pulmonary arterial hypertension: a challenging issue for the pregnant women, the foetus, and healthcare professionals. *Medicina* 2022; 58: 476.)

Response: We agree with your point of view and corrected the incorrect wording in the article. This is a case report to describe a pregnant patient with ES after cardiac surgery. It discusses the safety and efficacy of epidural anesthesia and intensive monitoring for termination of pregnancy.

7. How often and where was the patient followed up after she underwent transcatheter closure of the PDA?

Response: We added relevant content in the case presentation section. The patient stated that the PDA was completely closed after the transcatheter interventional procedure, and she went to the local hospital for irregular follow-up after the operation.

8. Laboratory examination: You need to state the fraction of the inspired oxygen concentration when the arterial blood was sampled.

Response: at 21% oxygen concentration.

9. You need to state the systemic arterial pressure when the pulmonary artery pressure

was 117 mmHg.

Response: The pulmonary artery systolic pressure was estimated at 117 mmHg, the brachial systolic pressure 124 mmHg.

10. Treatment: You need to state actual values of systemic and pulmonary artery pressures and SpO₂ during the procedure.

Response: The systemic artery pressure was maintained between 110 and 130/60-70 mmHg, the pulmonary pressure at 100-110/50-55 mmHg, and SpO₂ 98-100% during the procedure.

11. As you stated in discussion that “Furthermore, the epidural catheter provides assurance for further anesthesia and postoperative analgesia,” you need to state why the epidural catheter was removed in the operating room.

Response: Since we planned postoperative heparin anticoagulation, the epidural catheter was removed before leaving the operating room to avoid epidural hematoma and other complications.

12. I do not think Figure 3 is essential.

Response: We have deleted this part.

13. Discussion: There are pregnant women with pulmonary hypertension who delivered their newborn, although some women succumbed to heart failure, as reported by Hartopo et al (Hartopo AB, et al: Severe pulmonary hypertension and reduced right ventricle systolic function associated with maternal mortality in pregnant uncorrected congenital heart diseases. *Pulmonary Circulation* 2019; 9:1-9.). You should take into account the severity of pulmonary hypertension, outcomes of pregnancy, and mortality of the patients, in Eisenmenger’s syndrome in your discussion.

Response: Guidelines for the management of cardiovascular disease in pregnancy indicate that women with uncomplicated congenital heart disease have no risk or a slightly increased risk of maternal mortality after pregnancy. However, women with congenital heart disease combined with Eisenmenger syndrome have a high mortality due to unbearable hemodynamic changes. (Regitz-Zagrosek V, Roos-Hesselink JW, Bauersachs J, et al. 2018 ESC guidelines for the management of cardiovascular diseases during pregnancy. *Eur Heart J* 2018; 39: 3165–3241.) The factors related to maternal

mortality are severe pulmonary hypertension, ES, and reduced RV systolic function. A previous study showed significantly higher mortality in patients with severe pulmonary hypertension and ES. (Hartopo AB, et al: Severe pulmonary hypertension and reduced right ventricle systolic function associated with maternal mortality in pregnant uncorrected congenital heart diseases. *Pulmonary Circulation* 2019; 9:1-9.). Therefore, patients with congenital heart disease combined with ES are advised to avoid pregnancy and terminate pregnancy in a timely manner.

14. References: You should look for more recent literatures.

Response: We have added some recent references.

Reviewer 2: Good writing, good scientific soundness, some old references must be updated.

Response: We have added some recent references.