

REVIEW REPORT

Title: Successful anaesthetic management in a patient scheduled for open-heart surgery for the third time:

A case report

Authors: Md Mostafa Nuruzzaman, Sanjoy Kumar Saha, Mohammad Musfiqur Rahman, Omar Sadeque Khan, Rezwanul Haque

Reviewer G: Chayan Kumar Singha, **ORCID:** 0000-0002-3220-0520, **COI:** None, **AI disclosure:** None

- 1. Comment** Provide missing clinical details including clearer timelines, investigations, intraoperative findings, and postoperative course.
Response: Additional clinical details were added to ensure completeness and clarity. A concise timeline of previous surgeries and symptom progression was incorporated. Preoperative investigations were expanded. Intraoperative and postoperative details were clarified.
- 2. Comment** Improve the flow and coherence of the case presentation to ensure a smoother and more logical narrative.
Response: The case presentation was reorganised following the CARE guidelines to improve transitions and ensure consistent narration and readability.
- 3. Comment** Revise and complete the figures ensure high quality, proper labelling, and adequate description in the text.
Response: Figures were reviewed, captions were expanded, and panel labelling clarified.
- 4. Comment** Review the language and formatting as several sections require editing to meet journal standards.
Response: The manuscript underwent complete language editing for grammar, clarity, and improved sentence structure.
- 5. Comment** The Clarify any ambiguous statements and ensure consistency throughout the manuscript.
Response: Revised ambiguous terms, such as 'decication therapy', were clarified to ensure consistency.

Reviewer H: Kazi Mahzabin Arin, **ORCID:** 0009-0004-0064-3847, **COI:** None, **AI disclosure:** None

In this manuscript, the author described the anaesthetic and postoperative intensive care management of a patient undergoing open-heart surgery for the third time, though in the title, intensive care management is not reflected. Based on the write-up, the management provided is standard for a complex cardiac case. Therefore, in my opinion, it is not suitable for a case report.

- 6. Comment** Major Comments
Line no. 2: In the title, it is obvious that surgery was done for the third time in the same patient; therefore, "in a single patient" can be omitted. My recommendation is to rewrite in the following way: 'Successful anaesthetic management in a patient scheduled for open heart surgery for the third time.'
Response: Thank you for this helpful suggestion. The title has been revised as recommended (line 3).
- 7. Comment** Line no. 41: Effective coordination and meticulous planning among the anesthesiologist, surgeon, and perfusionists are vital to ensuring patient safety and achieving optimal outcomes. Need to rewrite this line as stated above. Team effort is essential for the patient's safety and better outcomes. Though the author addressed this in the following line.
Response: The statement has been revised for clarity and conciseness in line 31–32.
- 8. Comment** Line 44–45: Regarding outcome - you can write in the discussion or conclusion, not in the introduction part.
Response: Outcome-related statements were removed from the Introduction and incorporated into the line 71-72 in case description and throughout the Discussion/Conclusion.
- 9. Comment** Line no. 54–60: Baseline clinical examination findings are missing here.
Response: The case description has been expanded, and baseline vital signs and systemic examination findings have been added in line 41–50.
- 10. Comment** Line no 60: Please write informed written consent.
Response: We have corrected this as suggested in line 51–52.
- 11. Comment** Line no 72: The author wrote SpO2 improved to 97 % three hours later with acceptable ABG findings, but what was the ABG value before management? In addition, the author refers to Figure 1, but those figures are not relevant to the statement.
Response: The pre-intervention ABG values have been added in Line 66-67. The figure reference has been removed from that section.

- 12. Comment** Line no. 91–92: This statement doesn't make any sense.
Response: The sentence has been rewritten for clarity in line 76–77.
- 13. Comment** Line no. 70–71,94–94: These statements are self-contradictory.
Response: The statement has been modified and the explanation regarding the absence of advanced monitoring and reliance on invasive monitoring in line 85–87.
- 14. Comment** Minor comments
Line no. 48: Please write the full form of BMU.
Response: Line no. 48: Please write the full form of BMU.
- 15. Comment** Line no. 50: Please write the full form of ASD.
Response: All abbreviations are now written in full at their first appearance.
- 16. Comment** Line no 53, 58, 69: Please write the full form of MVR, MV, RCEF, LVEF, ABP.
Response: All abbreviations are now written in full at their first appearance.
- 17. Comment** Line no. 70: Please specify the value of decreased SPO2.
Response: The exact value (87%) is specified in line 66.
- 18. Comment** Line no. 70–71: Better to write combination of on place of cocktail.
Response: This was replaced with “combination” in line 67.
- 19. Comment** Please comment on the quality and appropriateness of the data visuals (tables, figures, images, etc.), if any: Quality is good, but there is no picture of monitoring.
Response: Intraoperative monitoring images were not included owing to patient privacy considerations.
- 20. Comment** Please comment whether the references are appropriate and up-to-date.
Line 95–97: The reference cited is not appropriate, in that the article author reported on a machine learning (ML) model to make a decision for early extubation, which is not relevant to the current manuscript.
Response: We thank the reviewer for highlighting this issue. The cited machine learning-based extubation study (Fenske SW, Peltekian A, Kang M, Markov NS, Zhu M, Grudzinski K, Bak MJ, Pawlowski A, Gupta V, Mao Y, Bratchikov S, Stoeger T, Rasmussen LV, Choudhary AN, Misharin AV, Singer BD, Budinger GRS, Wunderink RG, Agrawal A, Gao CA, the NU SCRIPT Study Investigators. Developing and validating a machine learning model to predict successful next-day extubation in the ICU. MedRxiv 2024. <https://doi.org/10.1101/2024.06.28.24309547>) was not directly relevant to our clinical case report and has been removed and replaced with appropriate supporting literature in Line 147-150.
- 21. Comment** Please comment on the clarity, readability, and overall standard of English of the manuscript, and indicate whether language editing is required.
Some statements have poor Readability.
Language editing is needed
Response: The entire manuscript was revised and underwent thorough language editing for clarity and readability purposes.

Responsible editor: Md Nahiduzzamane Shazzad, **ORCID:** 0000-0002-8535-4259, **COI:** None

- 22. Comment**
1. Please add an abstract .
 2. Improve the introduction section of the manuscript by making it succinct.
 3. Reduce the text volume of the case description and management section.
- Response:**
1. We added an abstract.
 2. We revised to improve the introduction section per suggestion.
 3. We revised the case description and management section and able to reduce some text volume.