

Aortic valve replacement with right anterior mini-thoracotomy: A less invasive method even for sutured valves

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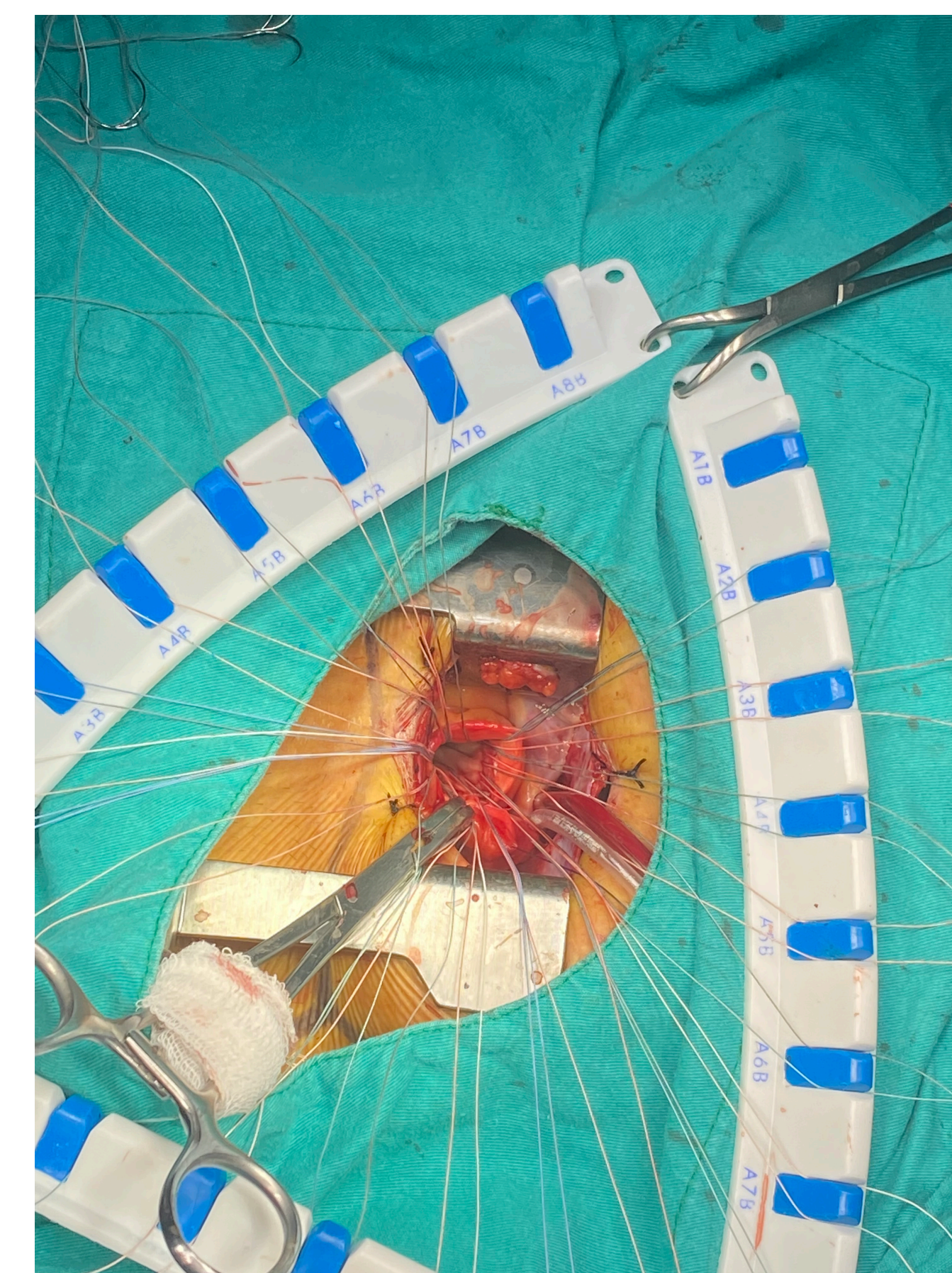
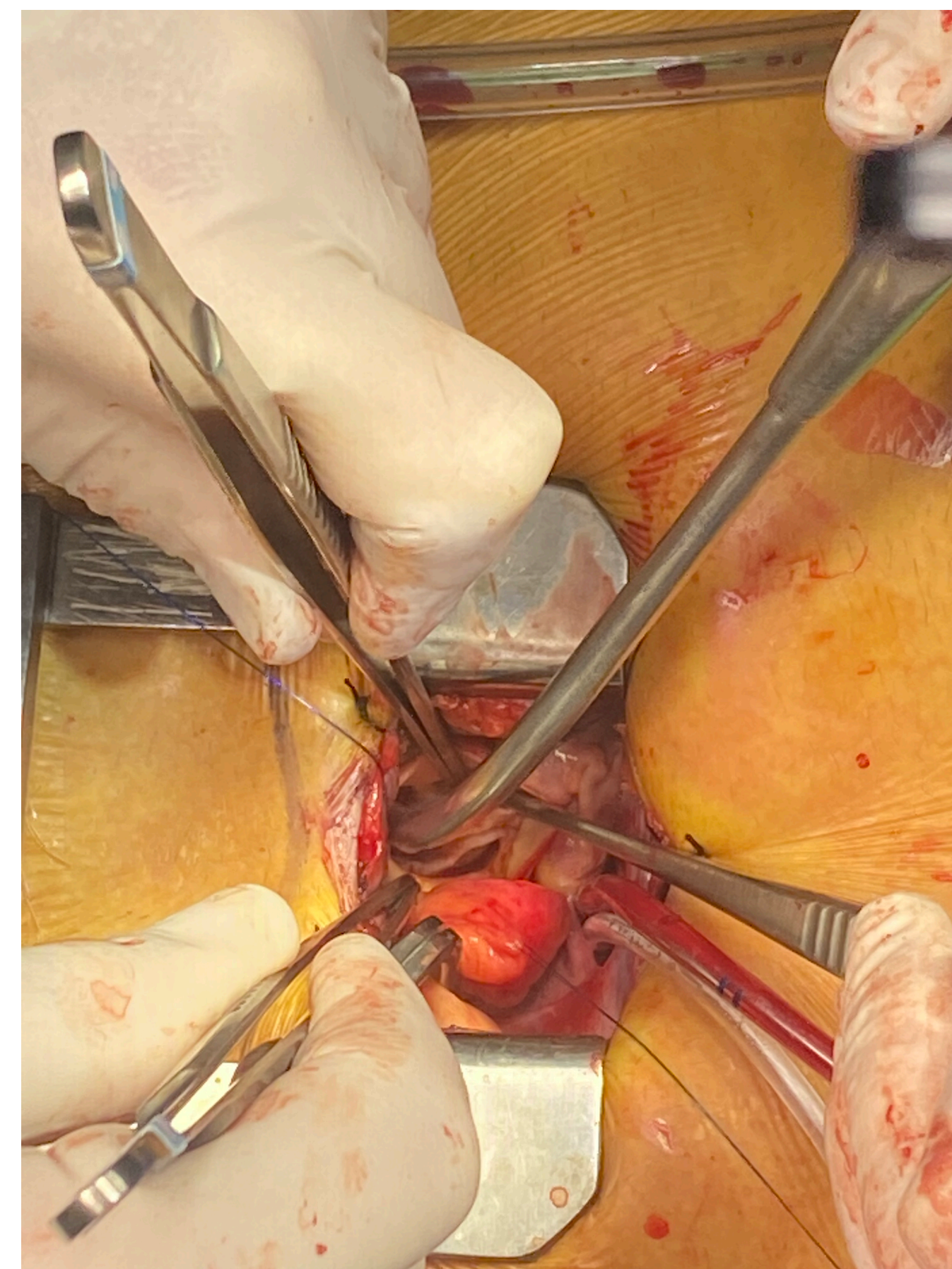
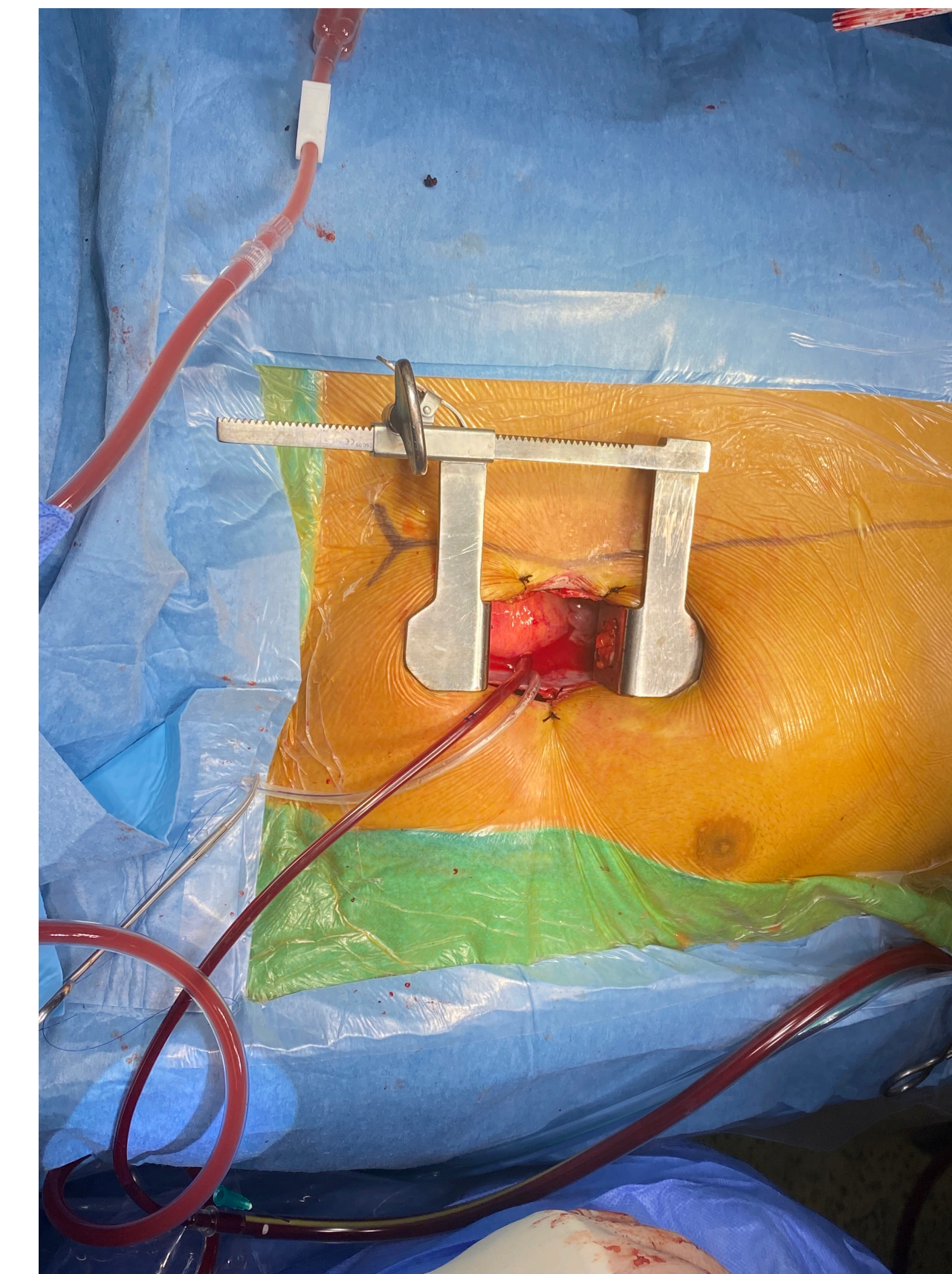
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BACKGROUND

- Minimally-invasive aortic valve surgery is becoming more popular when compared with a standard median sternotomy as surgical trauma is decreased.
- The aim of our study is to present our clinical experience regarding the results of patients who underwent isolated aortic valve replacement, including sutured valves, via the right anterior mini thoracotomy technique.

METHODS

- This study is a retrospective observational cohort study consisting of data from 30 patients who underwent isolated aortic valve replacement surgery using the right anterior thoracotomy method between Feb 2020- Nov 2023.
- All surgeries were performed using conventional surgical equipment.
- In 27 patients, peripheral cannulation and in 4 patients, vacuum-assisted (40-60 mmHg) central cannulation was performed.
- Subluxations of 2nd or 3rd ribs were performed for better surgical exposure.
- Delnido cardioplegia in 28 patients, and izothermic blood cardioplagia in 2 patients have been used.
- 22 mechanical valves, 7 biological valves and 1 suturles valves were implanted.



RESULTS

- We observed that post-operative intensive care unit staying was 1,3 days in average (1-3 days) and hospital staying was 8,6 days in average (5-15 days) with this technique.
- Average Cardio-pulmoner bypass (CPB) duration was 143,6 min. (86-271 min.) and cross-clamping duration was 93,6 min (45-162 min.).
- No mortality has occurred in 30 days follow-up.

CONCLUSIONS

- In selected patients, right anterior thoracotomy is a safe method due to its longer operative time as well as minimal surgical trauma, with good cosmetic results, and shorter hospital stay.
- Another advantage of this technique is; the surgery can be performed without any necessity for special surgical equipment even on sutured aortic valves.

REFERENCES

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