

The Experience of Pioneering Minimally Invasive Cardiac Valve Surgeries in Sri Lanka

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BACKGROUND

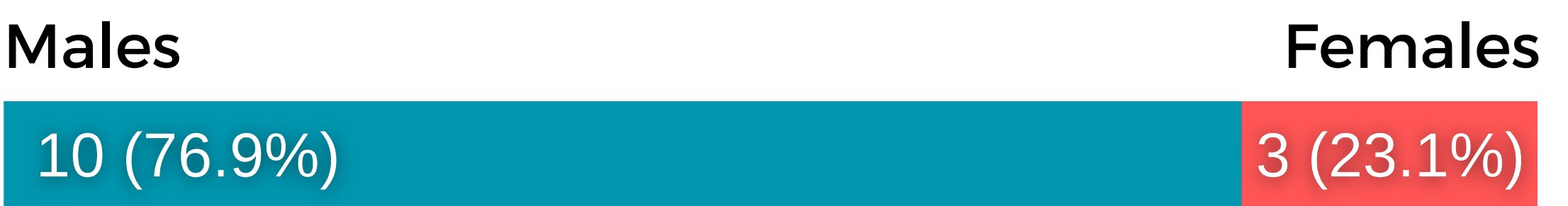
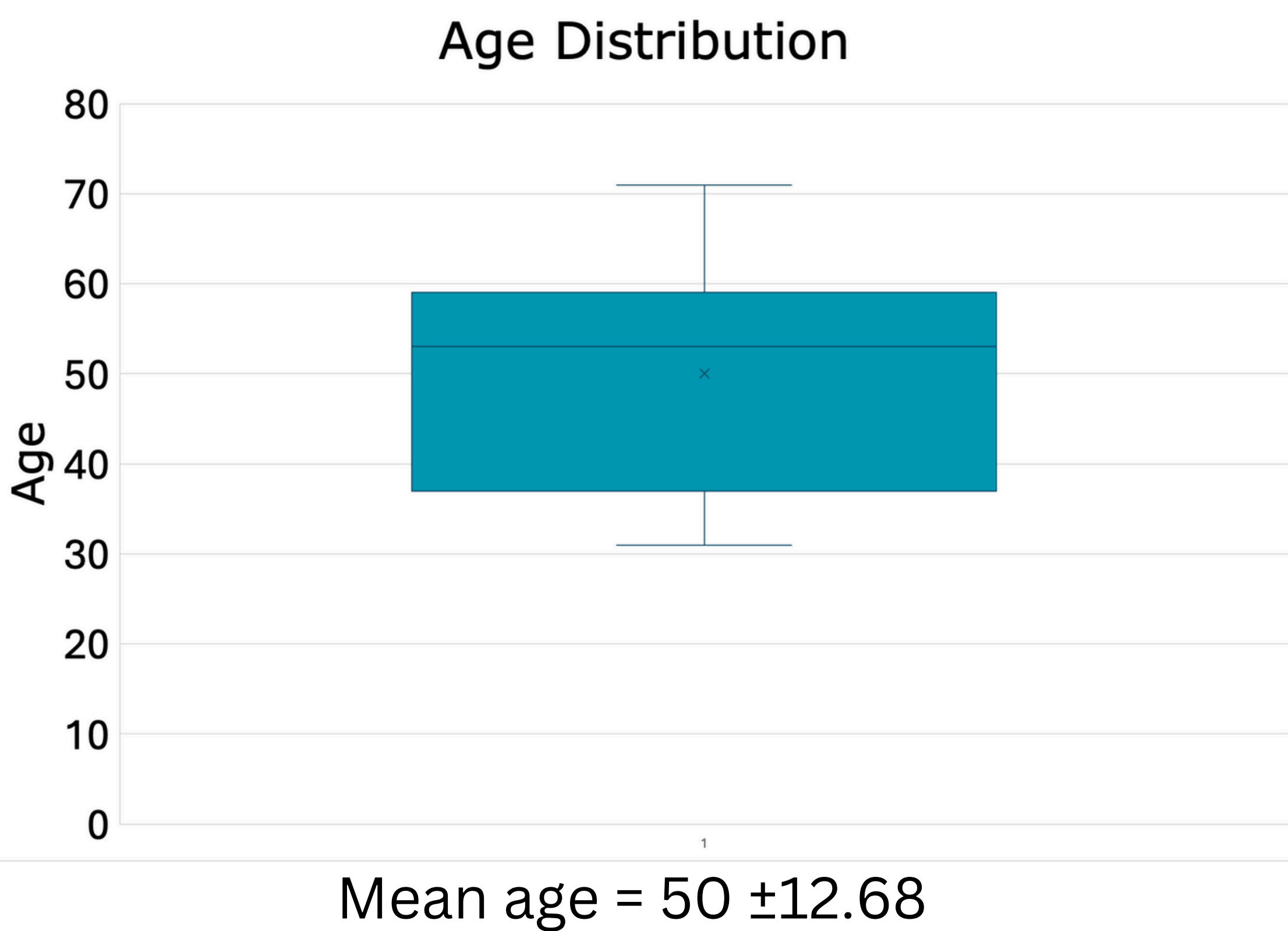
The minimally invasive cardiac valve surgeries are performed in only one center in Sri Lanka. Here we present the data on safety and efficiency of these procedures despite challenges in this field though we much more frequently perform minimally invasive direct coronary artery bypass grafts.

METHODS

This is a retrospective descriptive study which includes all the minimally invasive valve surgeries done from May 2017 to November 2023. There are isolated mitral valve surgeries and aortic valve surgeries amounting to 13 of which complete data for two cases are missing. The data were collected from both electronic and hard copies of BHTs (Bed head tickets) and the data was analyzed via IBM SPSS version 23.0. The mitral valve surgeries were done via 5cm Right anterior thoracotomy incisions and femoro-femoral cardiopulmonary bypass. The aortic valve surgeries were performed via upper hemi sternotomy incisions and either central or peripheral cardiopulmonary bypass.

RESULTS

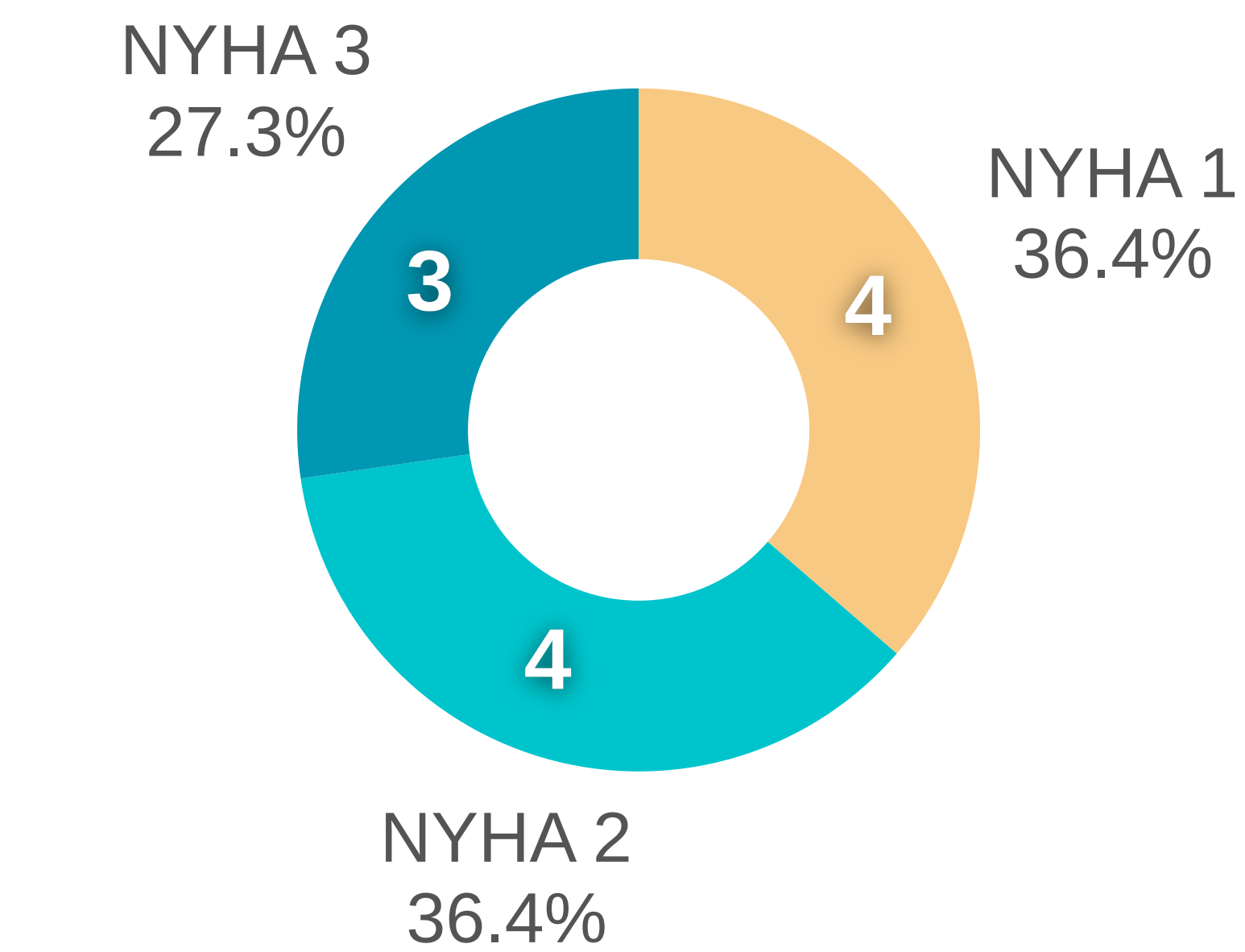
Age and gender



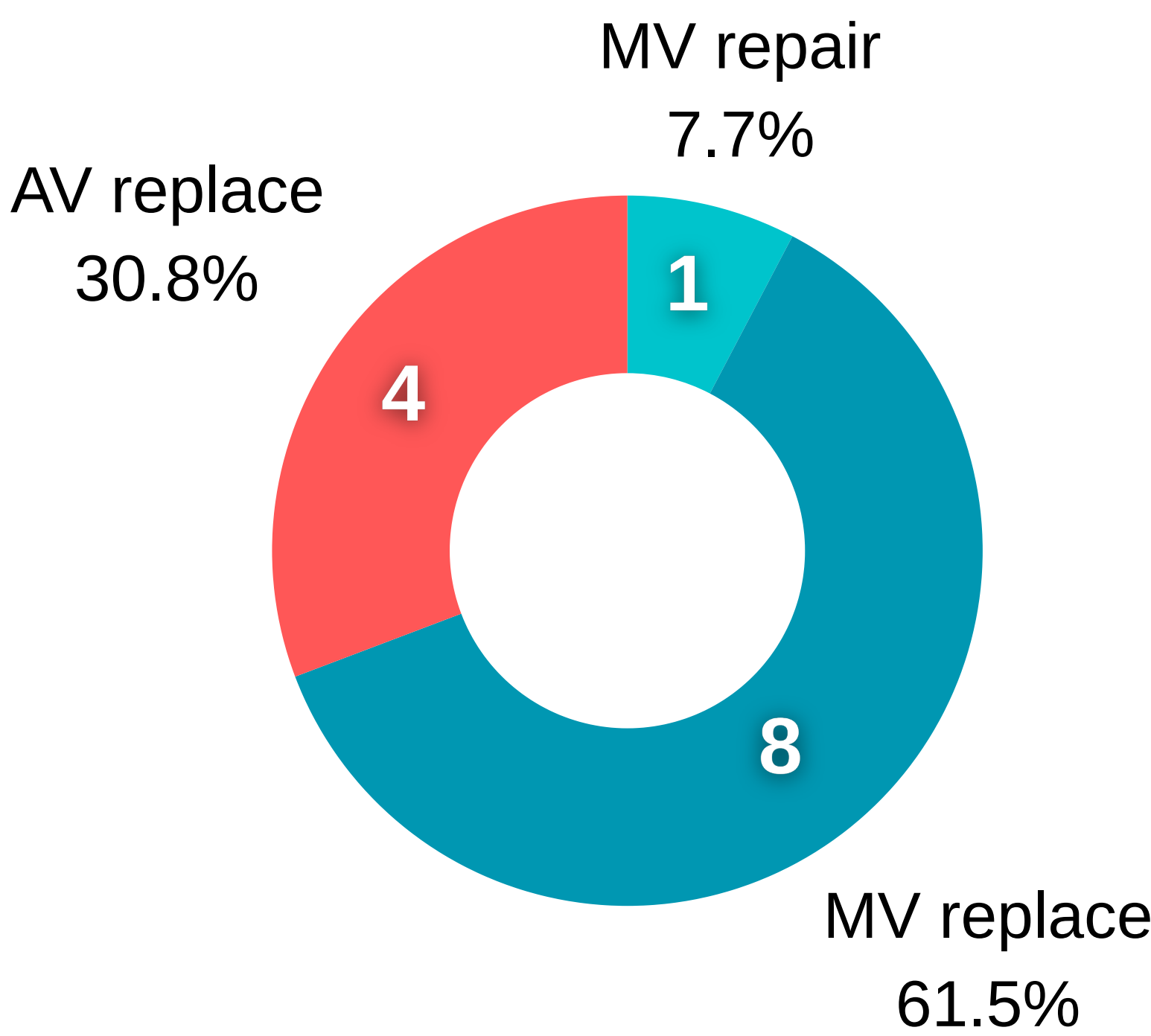
Preoperative conditions

Condition	Number (%)
Overweight	1 (9.1)
PHTN	1 (9.1)

NYHA category



Types of surgery



Mean aortic cross clamp time
171.5 ±33.39 minutes

Mean CPB time
222 ±33.26 minutes



Mean post op hospital stay
11.83 ± 4.8 days

Mean ICU stay
5.0±2.34 days

Intra-op and post-op events

Event	Number (%)
Intra-op blood tx	1 (9.1)
MACCE	0 (0)
AF	4 (36.4)
Sick Sinus	1 (9.1)
R/ pleural effusion	1 (9.1)
Pneumothorax	3 (27.3)

CONCLUSION

This study shows the safety and efficacy of the minimally invasive valve surgeries even in resource poor countries. A study involving a larger patient population and comparing it with conventional open valve surgeries is recommended.