

MIDTERM OUTCOMES OF AORTIC VALVE SURGERY THROUGH A RIGHT ANTERIOR SMALL THORACOTOMY(RAST)

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INTRODUCTION

Aortic valve surgery through a right anterior small thoracotomy (RAST) has become a standard of care in cardiac surgery at specialized centres. Ten years ago, we have established a structural heart-team center where we discuss every valve case in order to offer patient tailored therapies (surgery versus interventional).

The aim of our study was to analyze the outcomes of our singler-center heart-team-decision-based RAST cohort with regard to morbidity, mortality und midterm outcomes.

METHOD

Between August 27nd 2013 and December 13th 2022 a total of 341 consecutive patients underwent isolated RAST. Baseline characteristics, operative variables, postoperative outcomes and follow-up information was collected from our medical database and by contacting all patients by phone.



RESULTS

Mean age was 64.5+/-10 years, median Euroscore II was 1.04 +/- 0.5.

The predominant type of aortic disease was stenosis.

Thirty-day mortality was 0.58% and there were two strokes (0.62%). Mean follow up time was 2.5 years with up to 9 years.

At 1 and 5 years, survival was 99.3 % and 98.7% respectively.

	Number	%
Patients	341	-
Women	97	28.4
Atrial Fibrillation	12	3.5
Hypertension	135	39.5
Diabetes	33	9.6
COPD	7	2.0
Creatinine > 200µmol/l.	11	3.2
EF < 30%	6	1.7
NYHA III/IV	26	7.6
Cerebrovascular disease	20	5.8
Peripheral arterial disease	9	2.6
Previous surgery	0	0

CONCLUSION

In our specialized structural heart-team center with patient tailored decision-making, we are able to offer RAST with an in-hospital mortality below 1%, low morbidity, need for reoperation and favourable mid-term survival.

RAST might soon become the only acceptable surgical treatment option in the era of interventional procedures and these excellent results should serve as benchmark for the implementation of new interventions, specially in younger and low-risk patient populations.

	Number	%
Aortic stenosis	285	83.5
Combined stenosis-regurgitation	162	47.5
Biological prosthesis	321	94.1
Cross clamp time(minutes)	73 +/-23min	-
Conversion sternotomy	3	0.87
Intensive care stay (days)	2 +/- 5days	-
Hospital stay (days)	10 +/-5days	-
In-hospital mortality	2	0.58
Stroke	2	0.58
Rethoracotomy	8	2.3
Myocardial infarction	2	0.58
Pacemaker	10	2.9
Wound infection	1	0.29

	Number	%
Follow up until Oct 22	251	73.6
Re- operation	1	0.29
MACCE	0	0
Death	8	2.3
Endocarditis	3	0.87

