

STS/EACTS Latin America Cardiovascular Surgery Conference

November 15-17, 2018

Hilton Cartagena | Cartagena, Colombia



The Society
of Thoracic
Surgeons



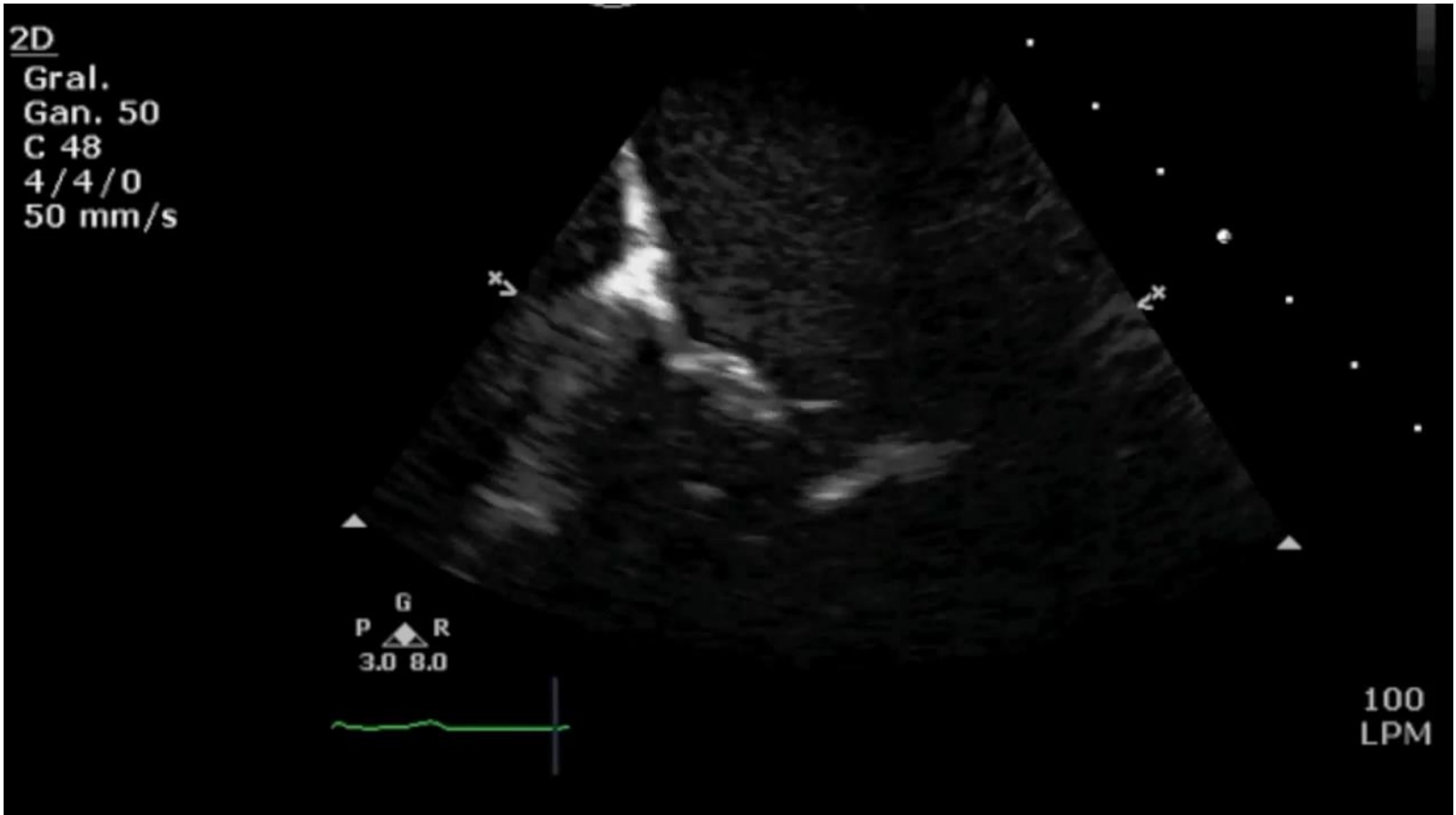
EACTS
European Association for Cardio-Thoracic Surgery

Minimally Invasive Mitral Valve Repair *On vs. Off Pump?*

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On Pump is Best



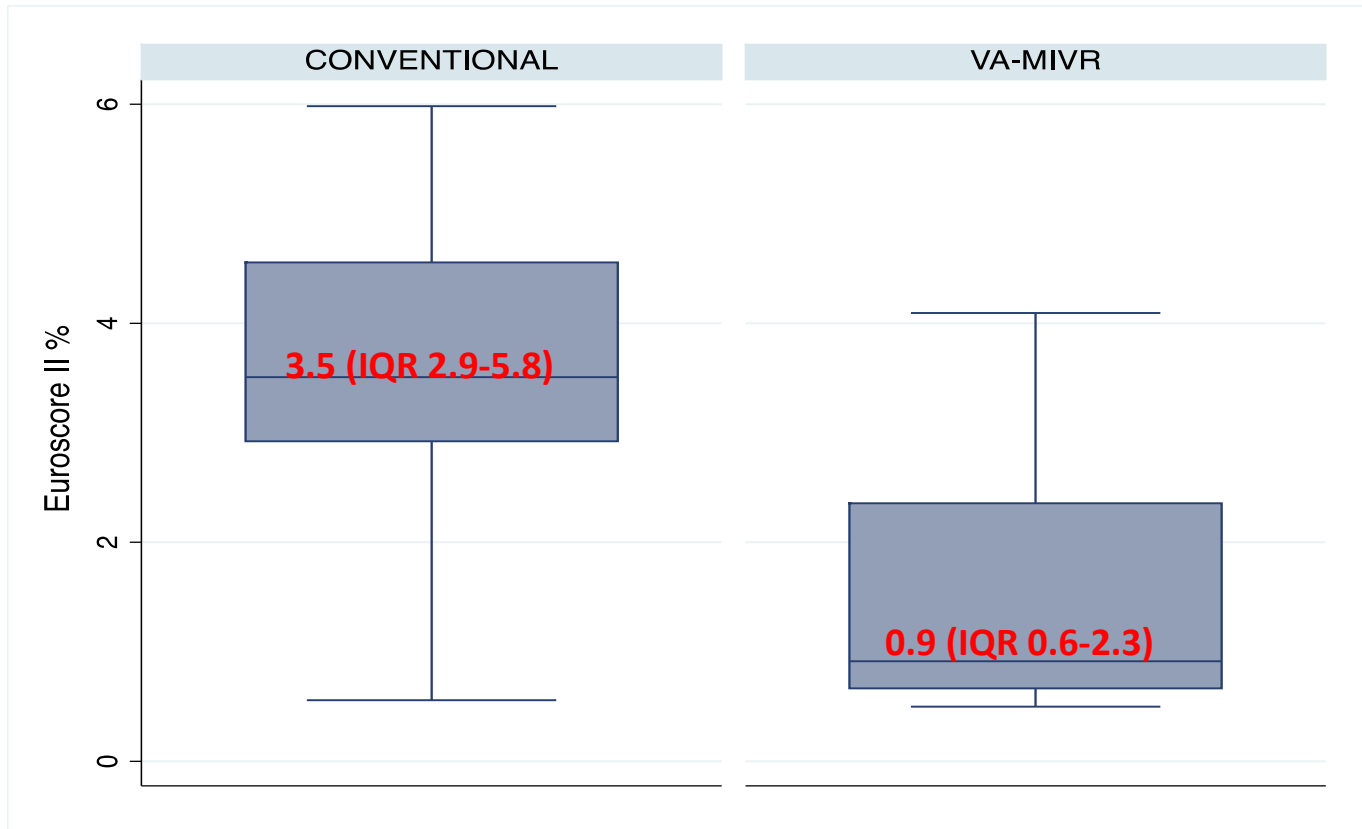
Patients & Methods

- Historical cohort of patients undergoing mitral valve repair between January 2004 and June 2017
 - Prospective harvest from July 2008
- Inclusion criteria:
 - First-time isolated mitral valve repairs
 - Conventional or minimally invasive
 - Dedicated Team
- Exclusion criteria
 - History of preoperative arrhythmias

Results – Preoperative Variables

VARIABLES	CONVENTIONAL	VA-MIVR	p
Body mass index Median (IQR)	26.3 (23-29)	24.3 (22.8-26)	0.005
Diabetes mellitus n (%)	1 (1.5)	0	0.374
Hypertension n (%)	29 (44.6)	6 (11.7)	0.0001
Previous myocardial infarction n (%)	1 (1.5)	0	0.374
Previous stroke n (%)	2 (3.1)	0	0.206
COPD n (%)	6 (9.2)	0	0.084
Preoperative creatinine Median (IQR)	0.9 (0.8-1)	1 (0.9-1.1)	0.005
Ejection fraction Median (IQR)	58.5 (46-64)	60 (55-62)	0.227

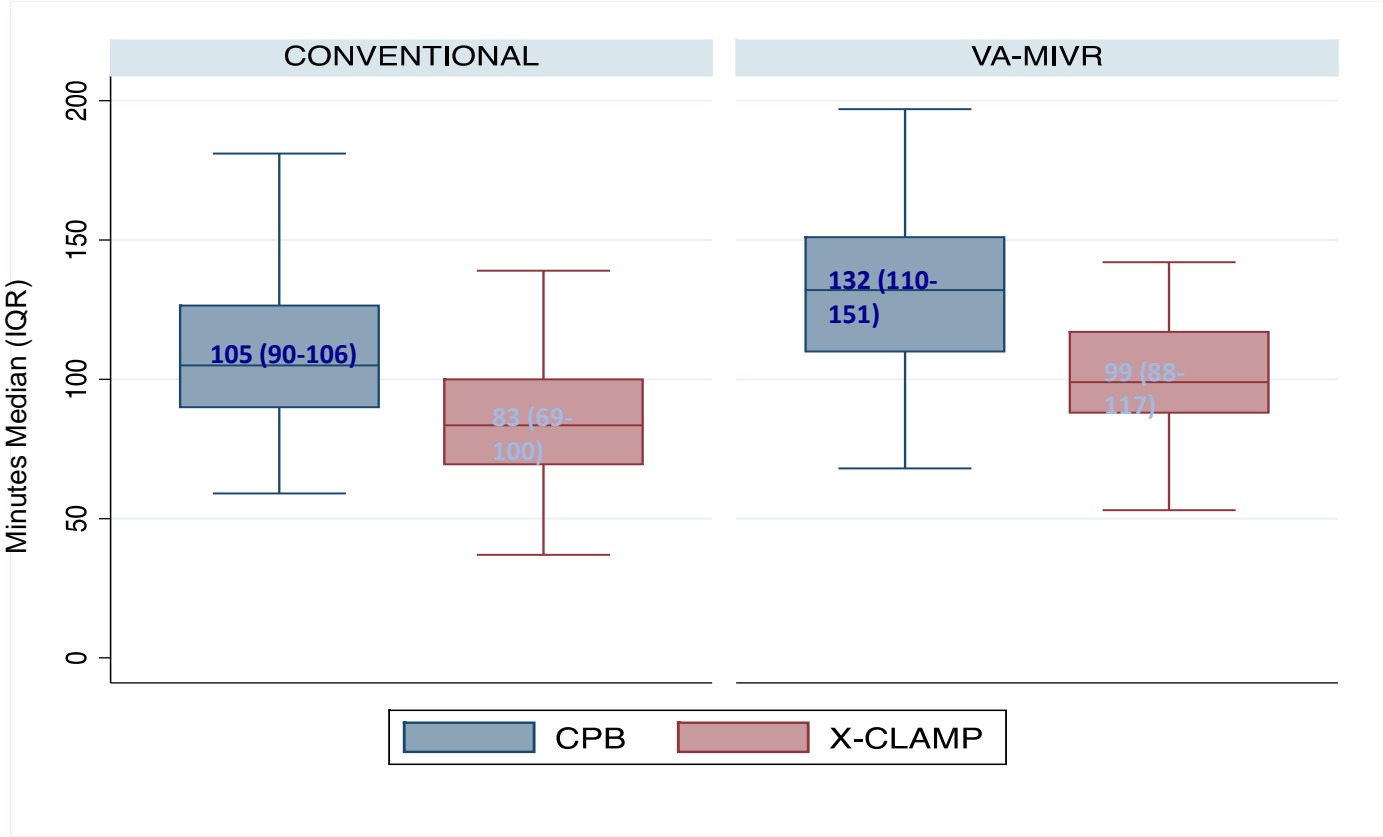
Preoperative Euroscore II



Variables Affecting Euroscore II

VARIABLES	CONVENTIONAL	VA-MIVR	p
Renal Impairment; n (%)	29 (44.6)	20 (39.2)	0.559
NYHA > II; n (%)	55 (88.9)	43 (83)	0.892
Pulmonary hypertension; n (%)	35 (72.9)	14 (33.3)	0.0001
Elective; n (%)	48 (74.8)	40 (78.4)	0.557

Intraoperative Results



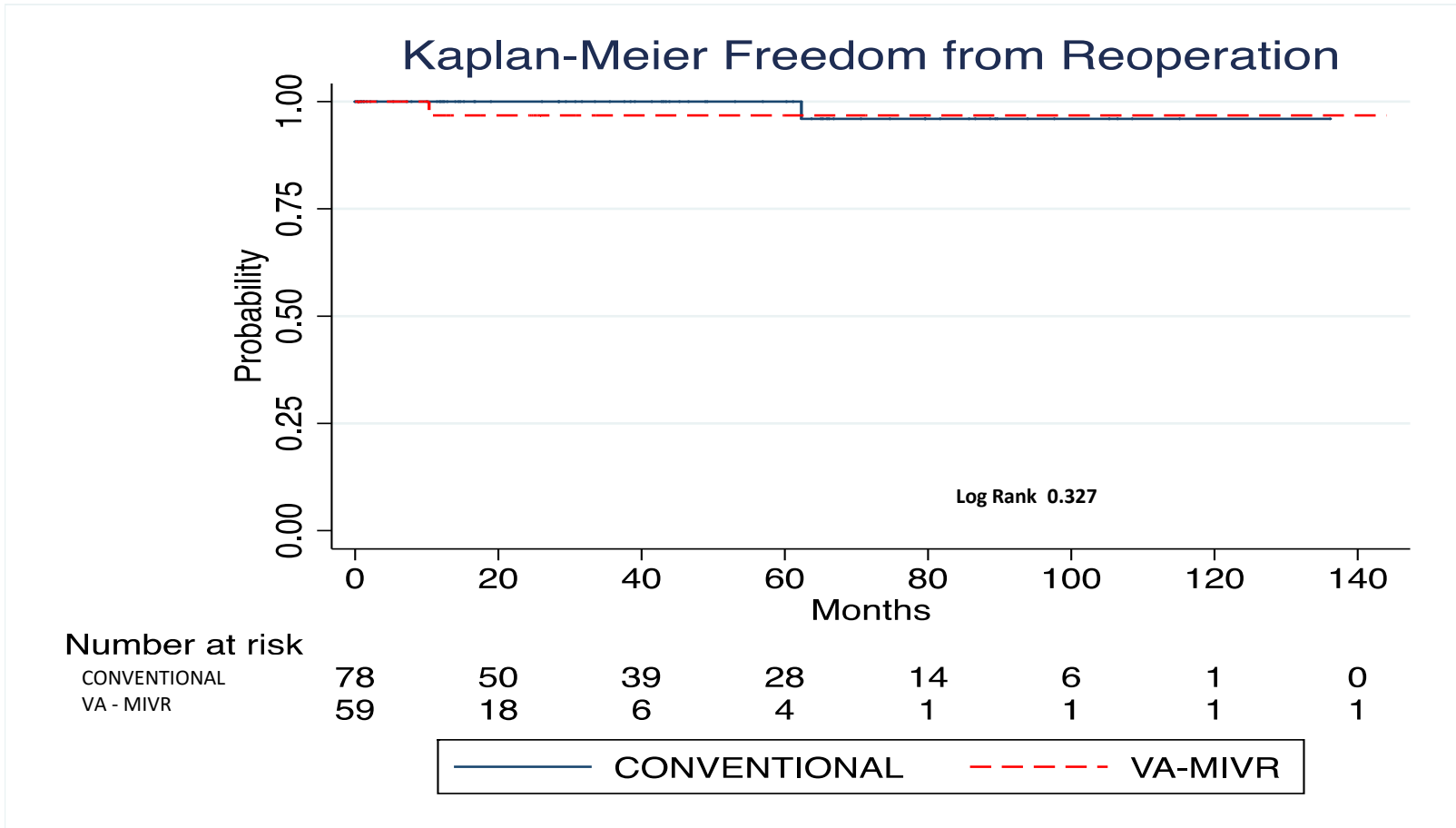
Primary Outcomes

VARIABLES	CONVENTIONAL	VA-MIVR	p
Bleeding requiring reoperation; n (%)	1 (1.5)	1 (1,9)	0.862
Deep wound infection; n (%)	1 (1.5)	0	0.379
Stroke; n (%)	1 (1.5)	1	0.862
Mortality (%)	0	0	-
Postoperative AF; n (%)	5 (7.6)	3 (5.1)	0.672

Secondary Outcomes

VARIABLES	CONVENTIONAL	VA-MIVR	p
ICU stay (hours); Median (IQR)	24 (24-72)	24 (21-24)	0.0001
Transfusion; n (%)	35 (38.5)	1 (1.9)	0.0001
Hospital stay (days); Median (IQR)	6.5 (5-12)	5 (4-8)	0.005

Freedom from Reoperation



Conclusions

- ✧ MIVS should be performed by surgeons who have already mastered conventional repair techniques
- ✧ Outcomes are progressively improving – May already be better than conventional surgery
- ✧ Heart Team Approach Flattens Learning Curve
- ✧ Hard to improve on current results with current off-pump offer

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THANK YOU

