

Forgotten no More!

Deep Dive Into the Tricuspid Valve

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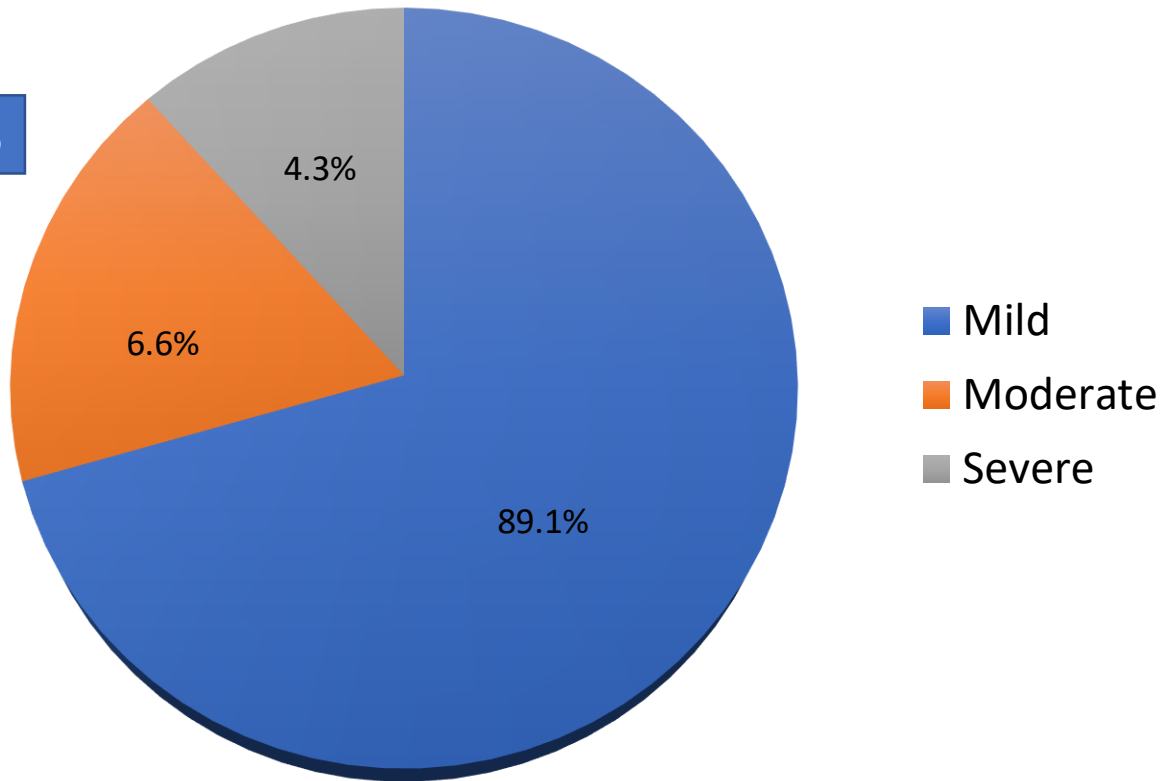
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Prevalence in a Community-Based Cohort 25000 pts

Prevalence 37%



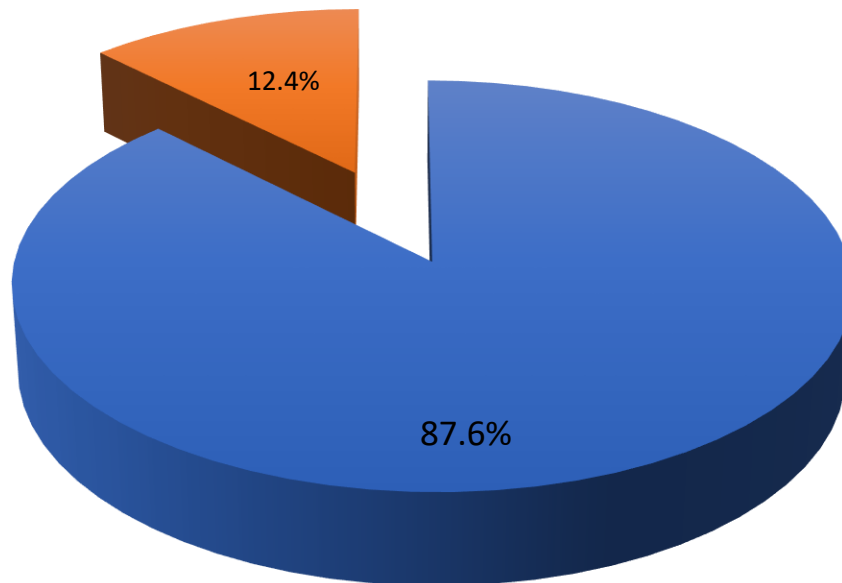
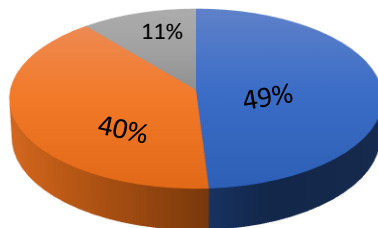
Etiologies in a Community-Based Cohort

■ Prolapse

■ Catheter
Related

■ Other

OTR



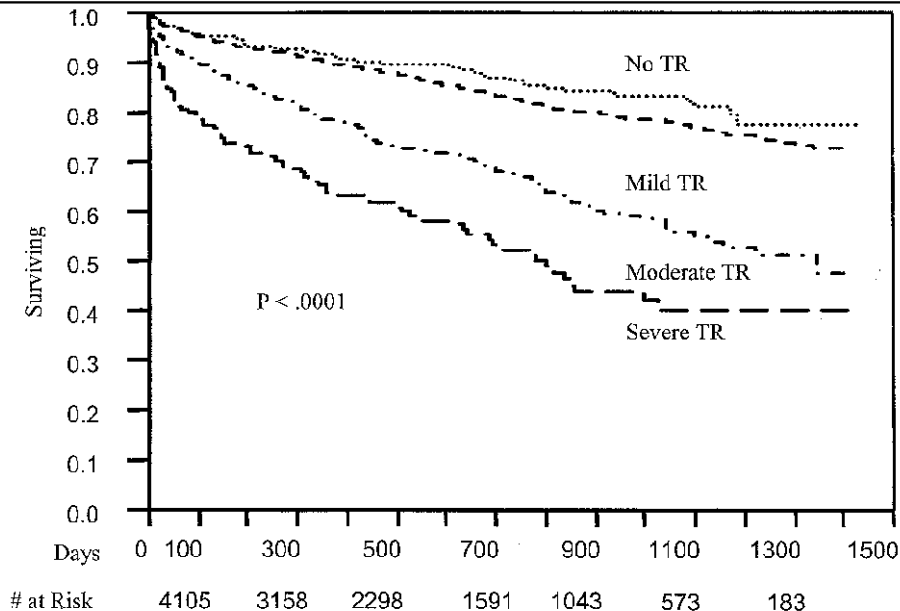
■ FTR

■ OTR

Impact of Tricuspid Regurgitation on Long-Term Survival

Jayant Nath, MD,* Elyse Foster, MD, FACC,† Paul A. Heidenreich, MD*

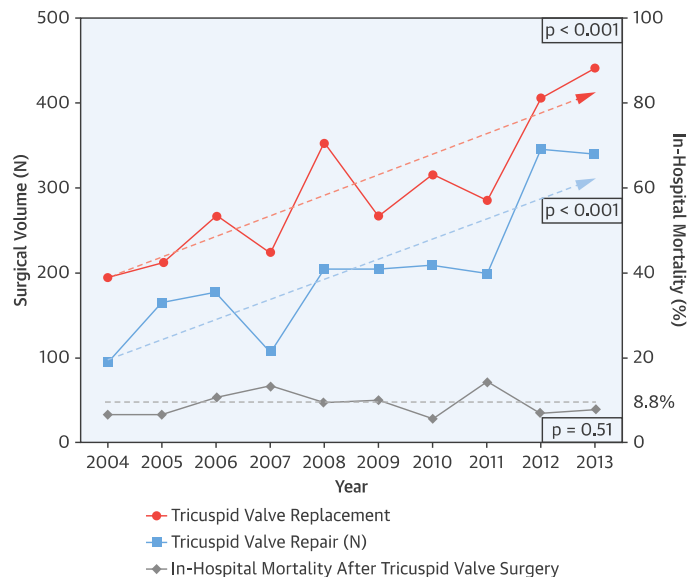
Palo Alto and San Francisco, California



TR severity is a marker of **Poor Outcome** independently of Age, LVEF, RVEF, RV size

Trends and Outcomes in Tricuspid Valve Surgery

CENTRAL ILLUSTRATION Temporal Trends in Surgical Volume and Mortality for Isolated Tricuspid Valve Surgery



Zack, C.J. et al. J Am Coll Cardiol. 2017;70(24):2953-60.

Hospital Mortality is still 8.8%

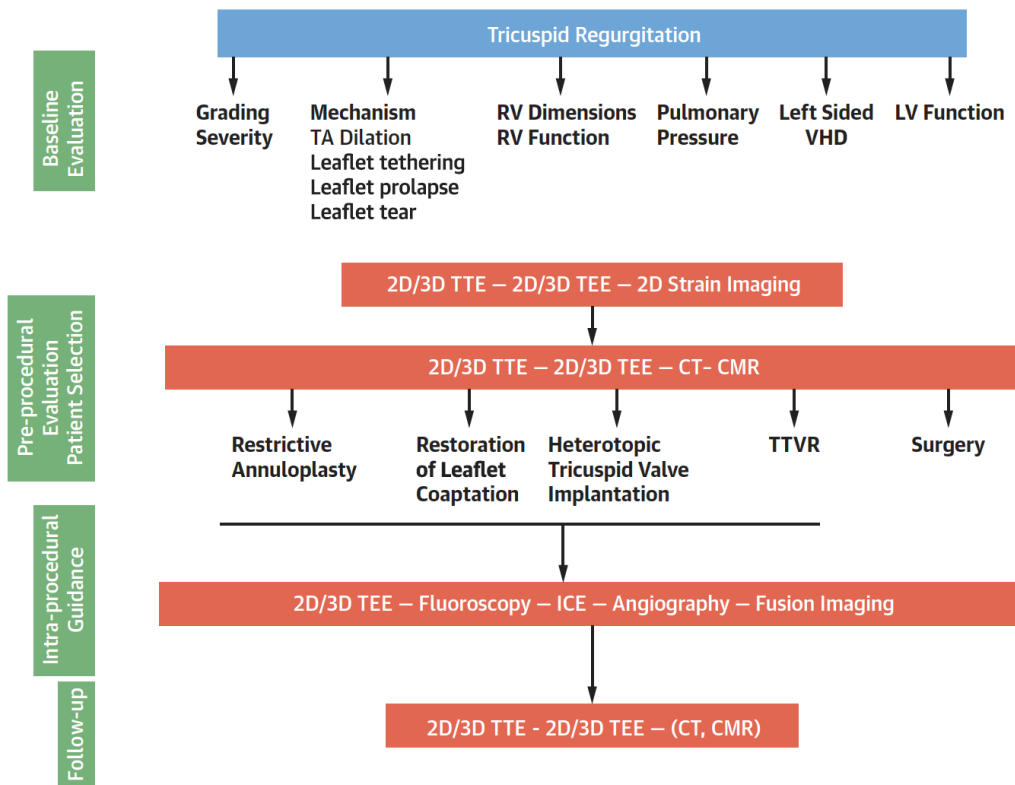
TABLE 3 Multivariate Logistic Regression for Predictors of In-Hospital Death in Patients Undergoing Isolated Tricuspid Valve Surgery From 2004 to 2013

Comorbidity	Odds Ratio	95% CI	p Value
Coagulopathy	2.37	1.44-3.82	<0.001
Hypertension	0.40	0.27-0.63	<0.001
End-stage renal disease	3.15	1.41-7.05	0.005
Age ≥60 yrs	2.02	1.22-3.34	0.006
Tricuspid valve replacement*	1.91	1.18-3.08	0.009
Charlson comorbidity index	1.58	0.93-2.67	0.09

Factors Affecting Surgical Risk and Morbidity

- ✓ Late Presentation
- ✓ Advanced age
- ✓ Previous Left Side HV Surgery
- ✓ Right ventricular Dilation and dysfunction
- ✓ Long-standing pulmonary hypertension
- ✓ Organ Failure

CENTRAL ILLUSTRATION Multimodality Imaging for Assessing Eligibility and Guiding Procedure for Transcatheter Tricuspid Valve Intervention



Anatomical Features

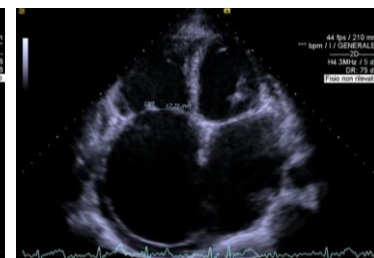
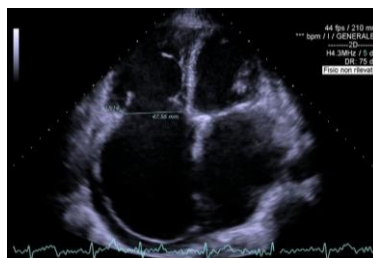
Leaflets Movement

Annular Diameter

Coaptation Depth

Coaptation Gap

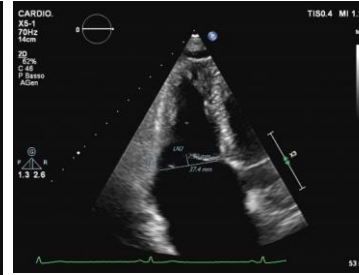
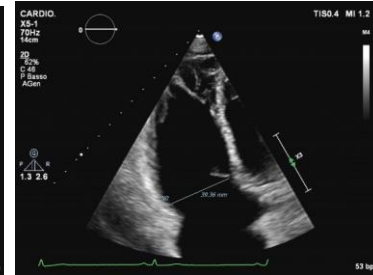
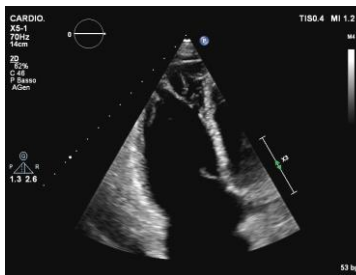
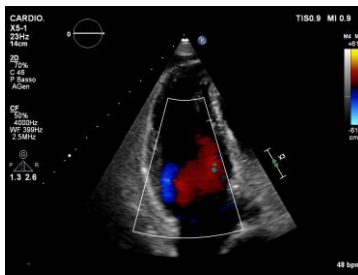
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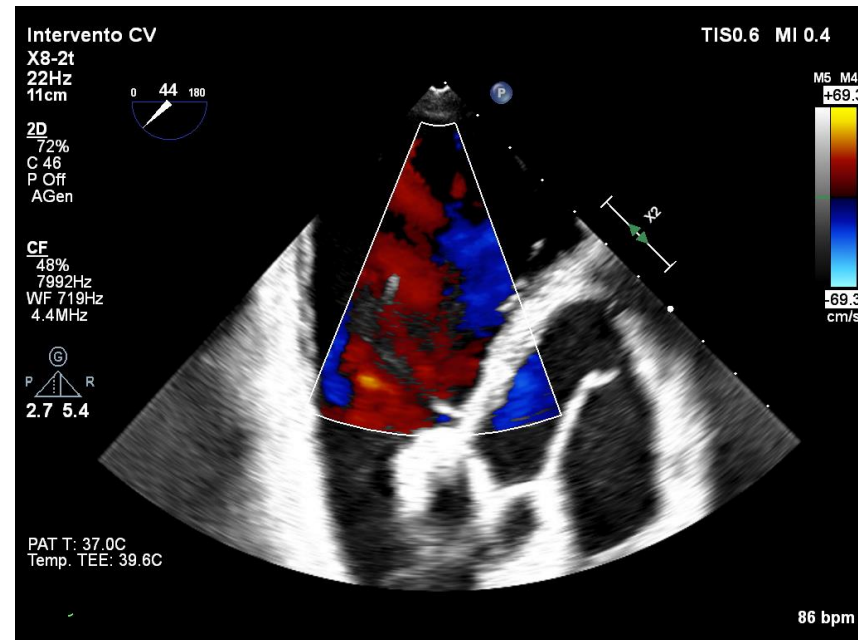
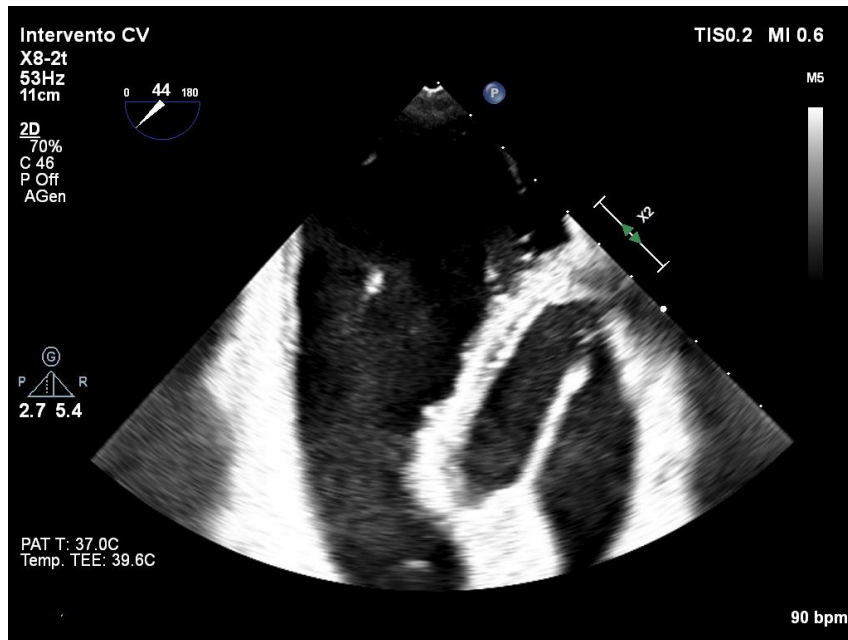


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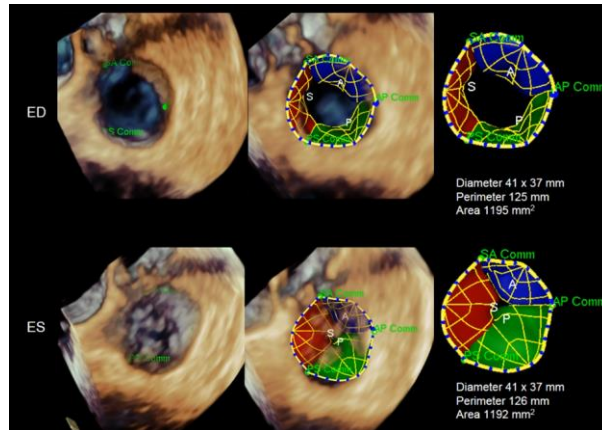
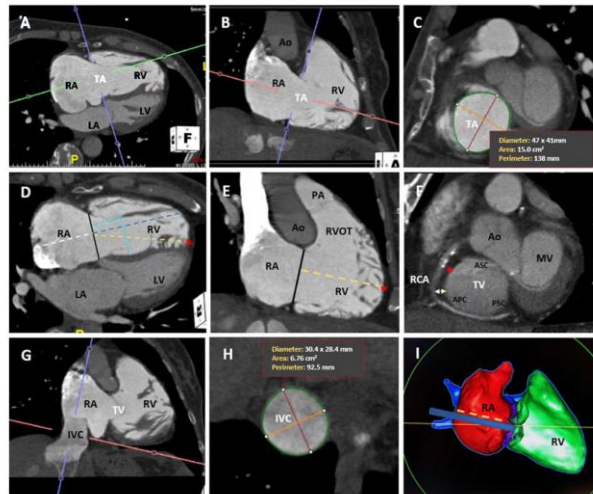
Anatomical Features

3

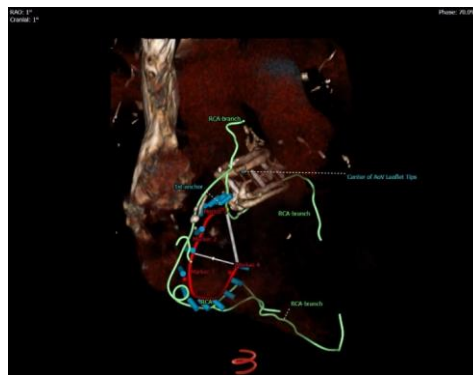
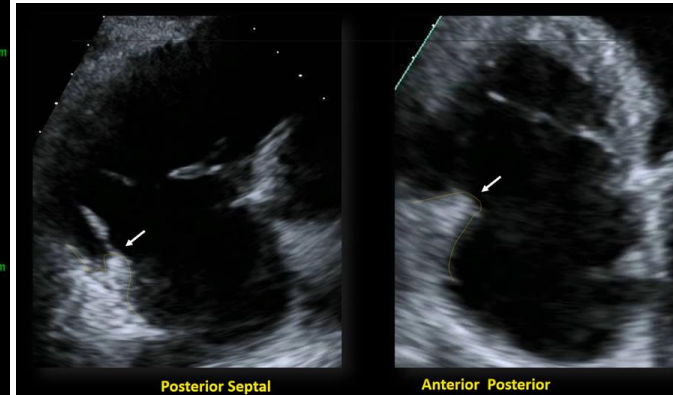


Anatomical Features – Pre-procedural Planning

FIGURE 4 Computed Tomography in Preprocedural Planning of Transcatheter Tricuspid Valve Interventions



Annulus Shelf Size



Conclusions

- ✓ The **prevalence** of TR is not negligible
- ✓ The **characterization** of TR is of the utmost importance
- ✓ The **mortality** of Tricuspid **surgery** is still high
- ✓ **Percutaneous** TR repair/Replacement is reserved to **high surgical risk** patients or **inoperable** patients
- ✓ The **results** are not comparable to surgical ones
- ✓ The **goal** is to reduce and not to abolish the the TR
- ✓ The **imaging** is still challenging