Tricuspid TEER

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Potential conflicts of interest

Speaker's name: Shunsuke Kubo

✓ I have the following potential conflicts of interest to declare:

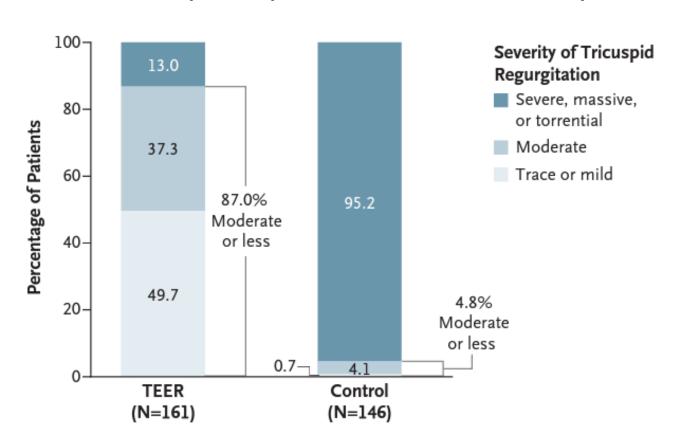
Clinical Proctor : Abbott Medical, Boston Scientific

Lecture fees : Abbott Medical, Boston Scientific

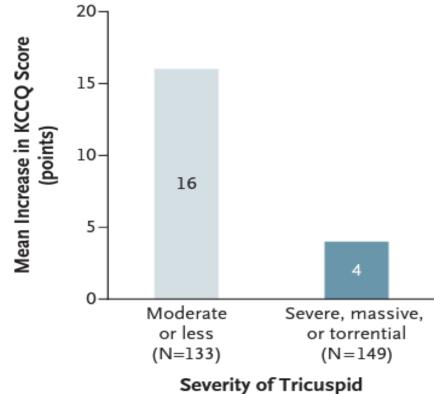


TRILUMINATE Trial

- 350 pts \Rightarrow TEER : OMT = 1 : 1
- Primary endpoint: Death, HF hospitalization, QOL improvement



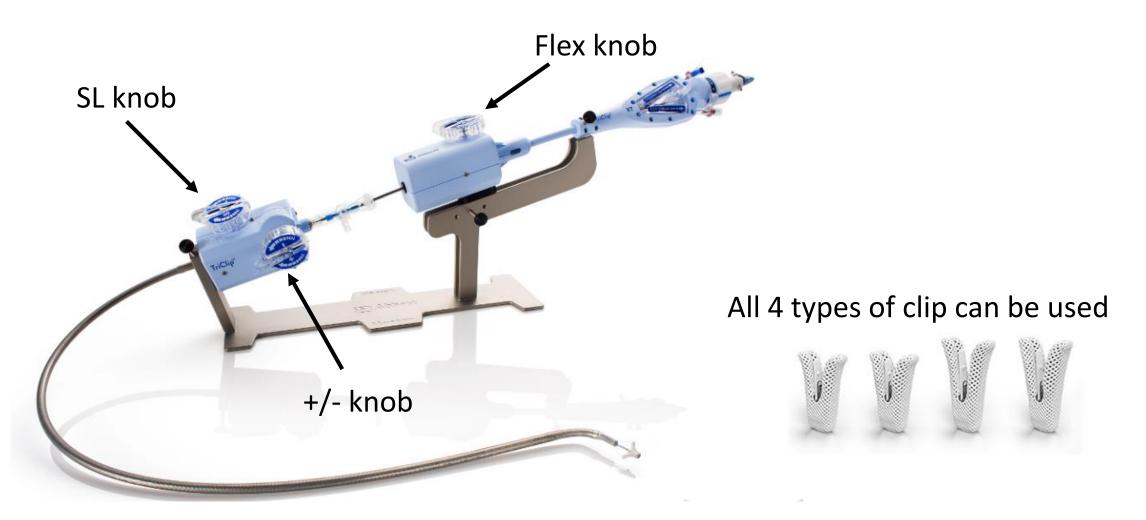




Severity of Tricuspid Regurgitation at 1 Yr



TriClip G4



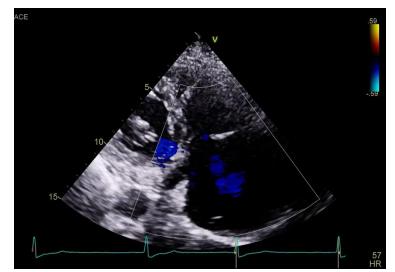
85 Years, Male

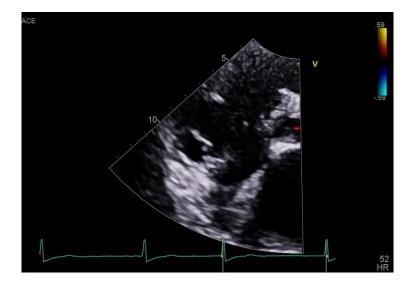
[Present illness]

- Leg edema and dyspnea due to severe TR despite using diuretics.
- Heart-team decided to perform TEER with TriClip.

[Past history] Hypertension, AF, CKD







LVDd/Ds = 45/22 mm, LVEF = 73% Massive TR (EROA 0.77. VCW 15.6mm) Hepatic vein reversal (+)



3D TEE and Transgastric Image



Wide TR jet coming from between anterior and septal leaflet and also posterior and septal leaflets.

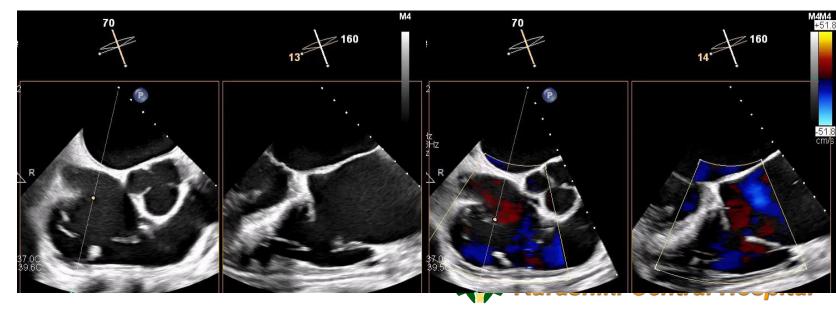
There are two posterior leaflets.



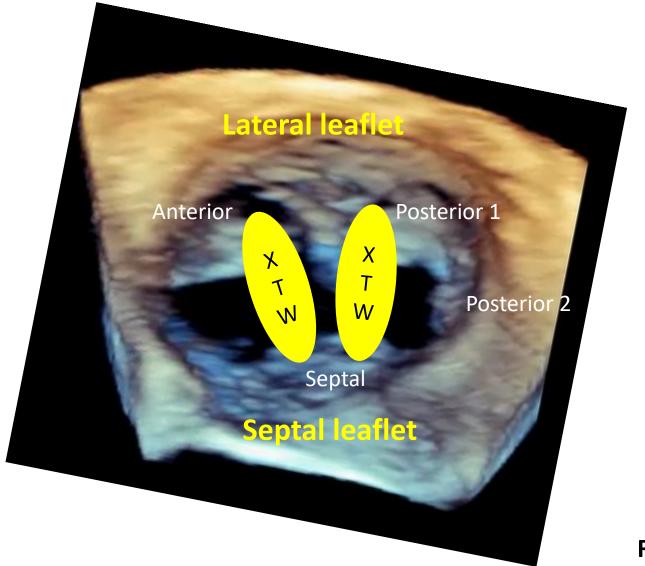
RV Inflow/Outflow X-plane Image

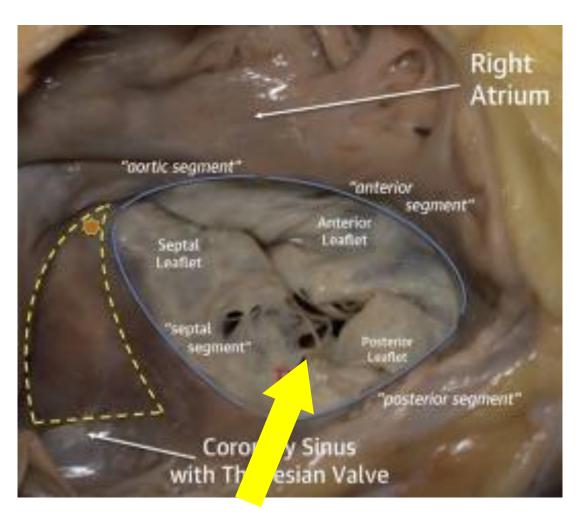
Central anterior/septal leaflet Small gap and large TR jet

Central posterior/septal leaflet Small gap and large TR jet



How to Clip Tricuspid Valve?

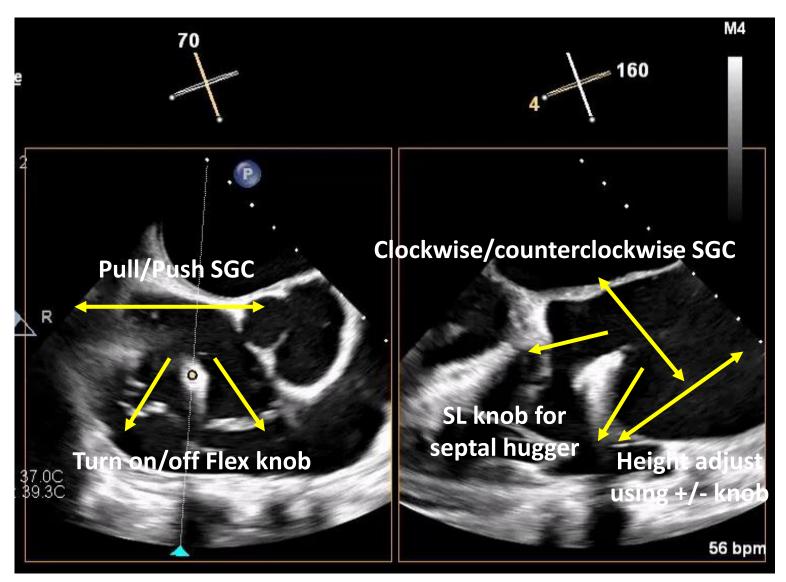


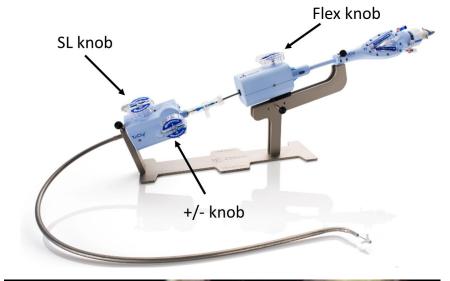


Rich chordae in posterior side



Trajectory in TriClip

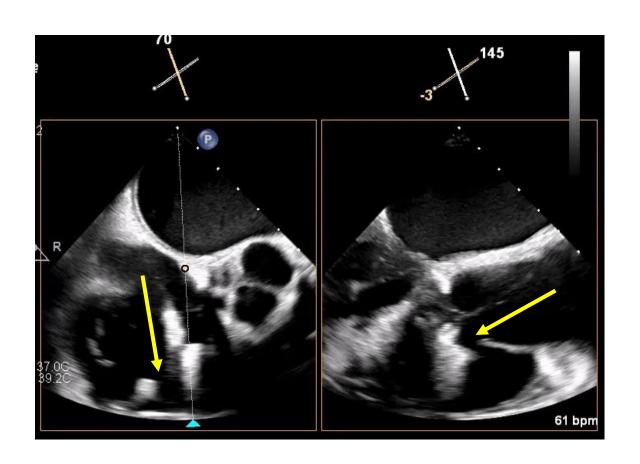


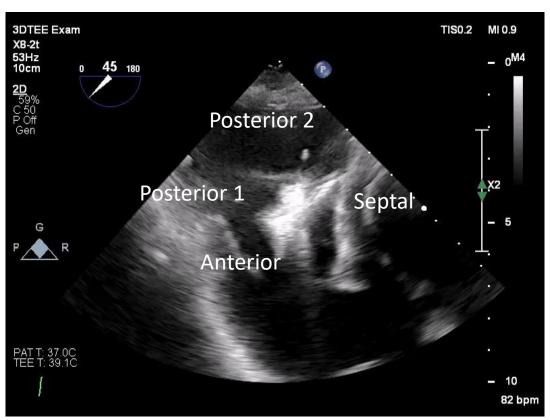




Check trajectory and orientation

XTW in RV

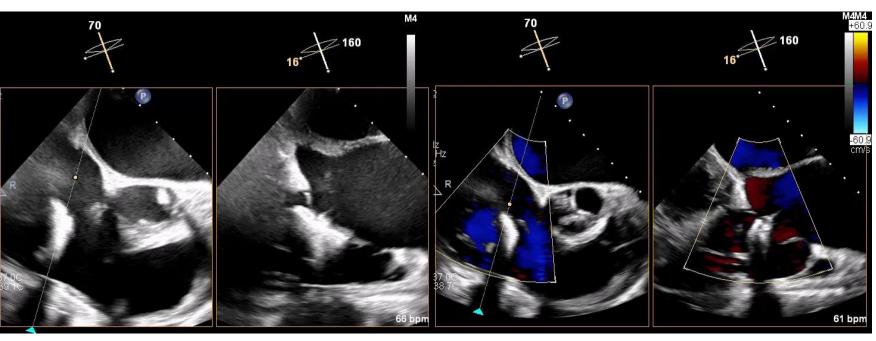




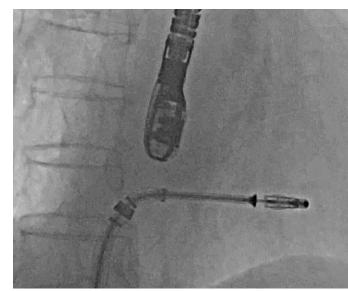
Insert clip to RV
Orientation should be checked in transgastric image



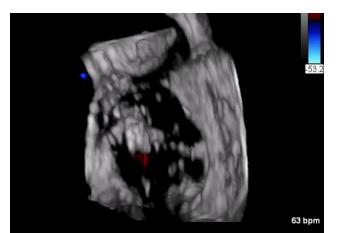
Leaflet Grasping

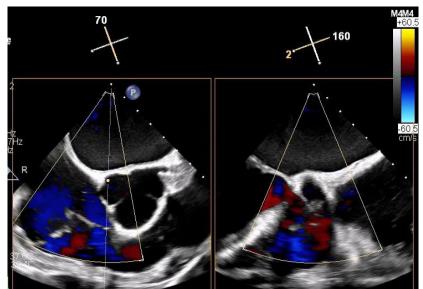


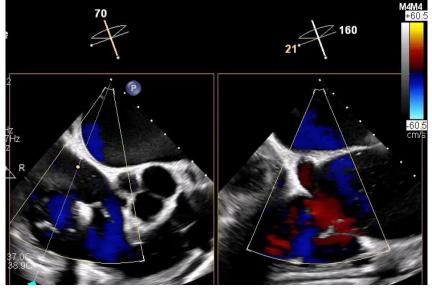
No TR around clip



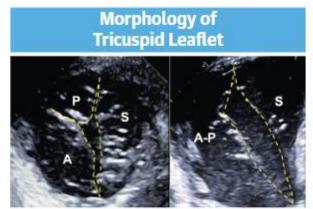
Enough leaflet tissue on both arms Put gripper down



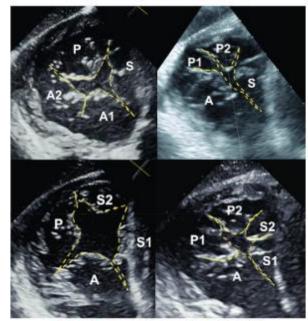




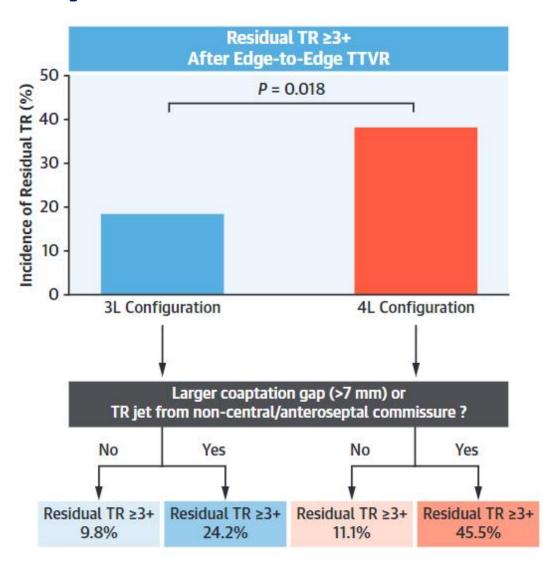
TR Anatomy and Outcomes



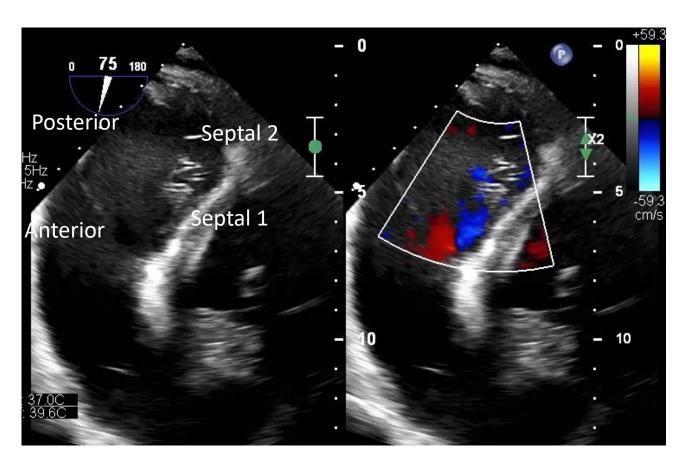
3-leaflet configuration 71.1%



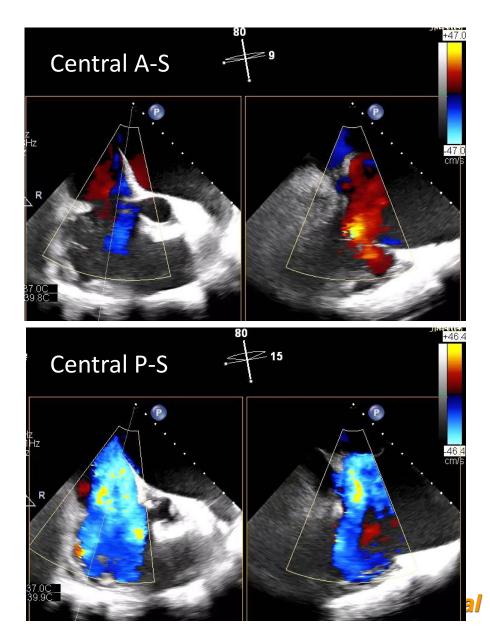
4-leaflet configuration 28.9%



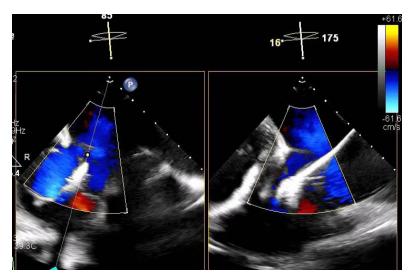
Challenging Anatomy



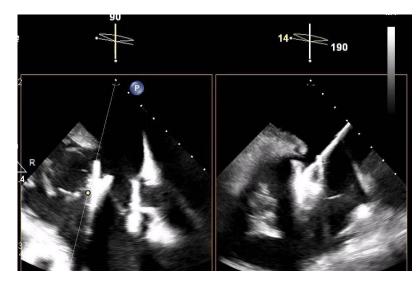
Torrential TR Large gap > 7mm Two septal leaflets



Clipping Procedure



XTW for central A-S



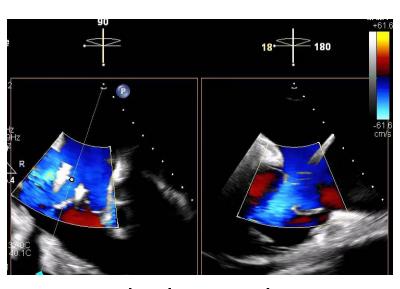
XTW for A-S (indentation)



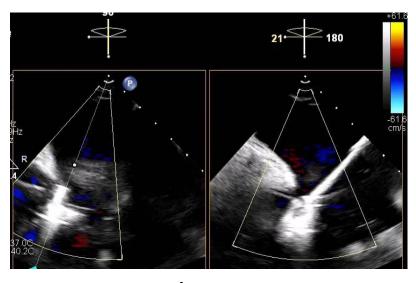
2nd XTW for central P-S



2nd XTW closed to 1st



Residual intra-clip TR



Moderate TR



Summary

- TriClip procedure is generally safe and effective for TR reduction.
- However, the procedure became challenging in the complex anatomies, including large coaptation gap, two septal leaflets, septal leaflet tethering, and poor imaging quality.