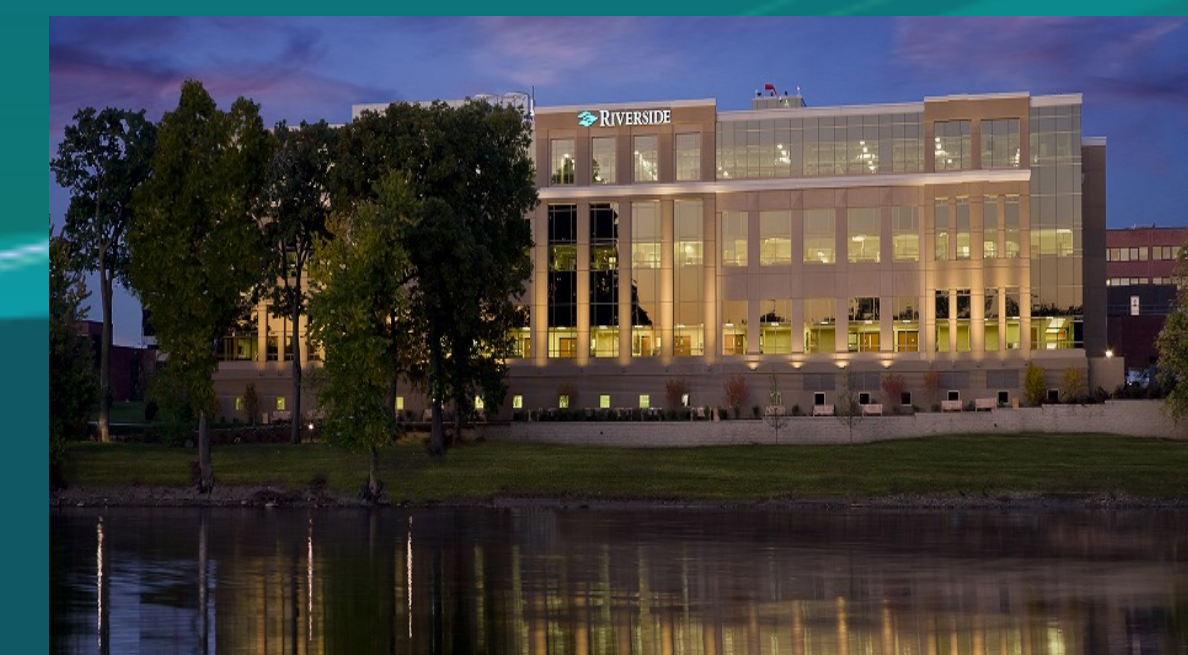




Successful Debulking of Tricuspid Valve Endocarditis Utilizing AngioVac Aspiration Thrombectomy

Abraham Lee DO, Uday Patel DO, Shiva Prasad Shashidharan MD, Amit Zachariah MD
Riverside Medical Center, Heart and Vascular Institute; Kankakee, Illinois



Background

The AngioVac System involves a venous cannula which is used to remove thrombus, masses, and vegetations via aspiration thrombectomy on the right side of the heart. We present a case of tricuspid valve endocarditis which was successfully debulked using the AngioVac system.

Case Presentation

- A 29 year old female with history of IV drug use presented with fever.
- CT chest showed diffuse bilateral lung nodules with cavitations concerning for septic emboli.
- Blood cultures were positive for Methicillin sensitive Staphylococcus Aureus (MSSA)
- Although TTE did not show valvular vegetations, TEE revealed a large, filamentous, mobile vegetation present on the anterior, posterior and septal leaflet with moderate tricuspid regurgitation (TR) concerning for tricuspid valve endocarditis.

Discussion

- Despite IV antibiotics, she continued to have recurrent MSSA bacteremia.
- After discussion with cardiothoracic surgery and interventional radiology, decision was made to perform AngioVac peripheral thrombectomy under TEE guidance as patient was a poor surgical candidate.
- AngioVac was used to successfully debulk the size of the vegetation from 4.0 x 0.51 cm to 1.5 x 0.5 cm.
- Pathology showed amorphous fibrinoid aggregates compatible with vegetations. Gram stain showed aggregates of gram-positive cocci.
- There was residual moderate TR but overall valve structure remained intact.
- Subsequent blood cultures showed resolution of bacteremia.

Conclusions

- The AngioVac System offers a viable option for debulking of large vegetations when the patient is a poor surgical candidate.

Disclosure Information

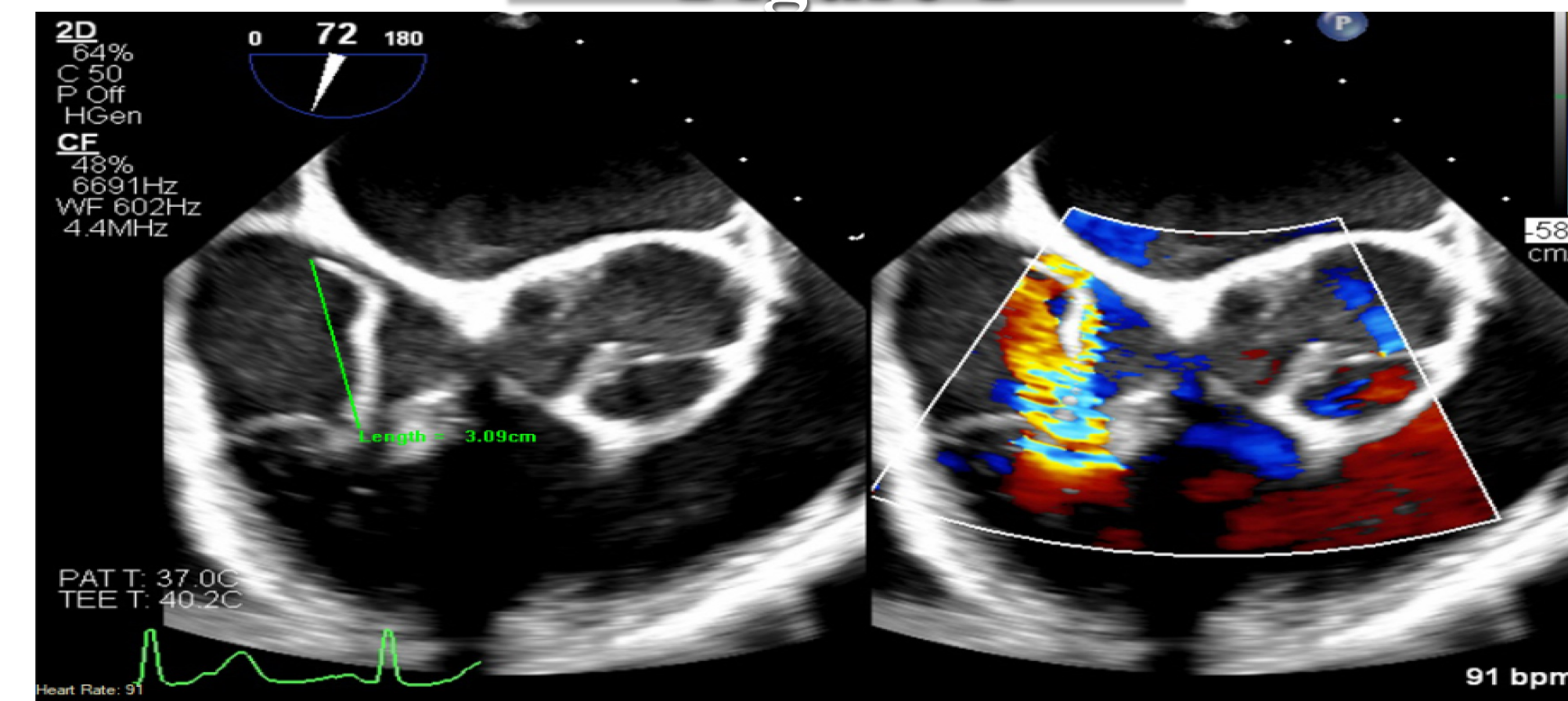
Nothing to disclose.

AngioVac is a percutaneous aspiration system used to debulk large tricuspid valve vegetations

Goal is to reduce bacterial load to increase efficacy of antimicrobial therapy

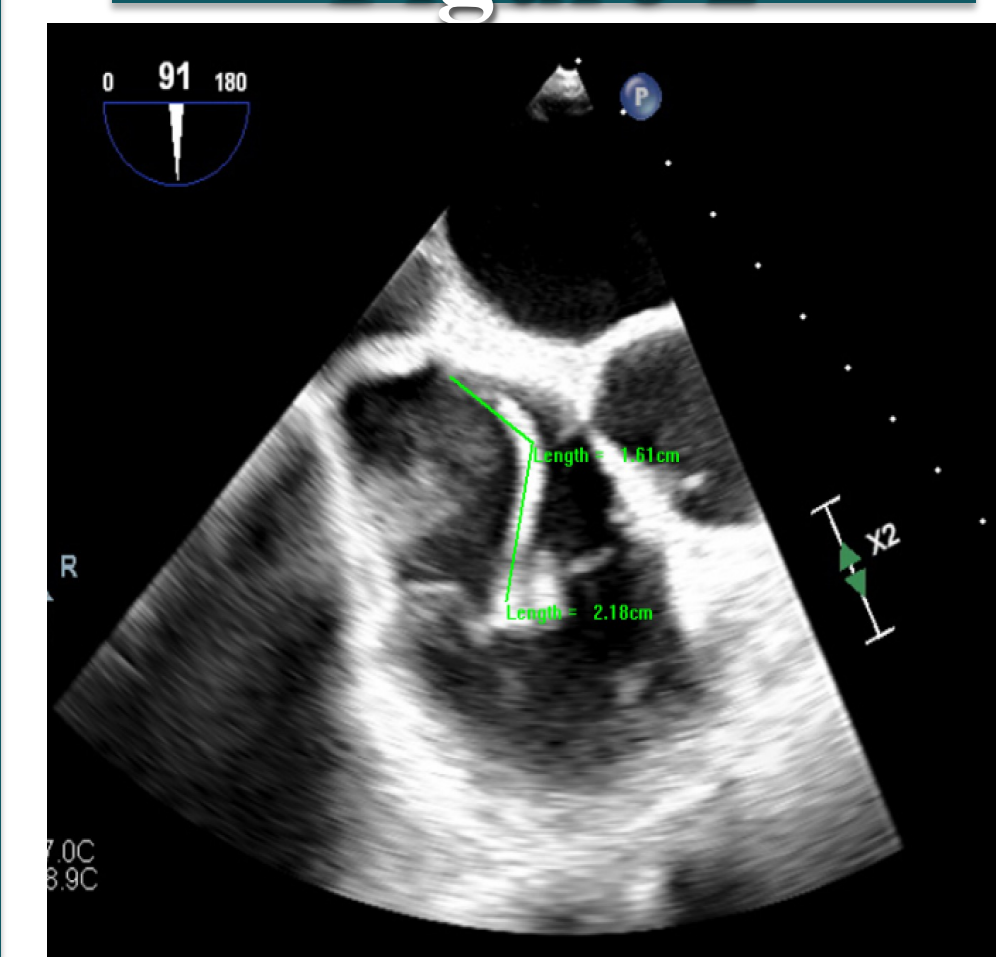
Can be considered for those who are poor surgical candidates

Figure 1



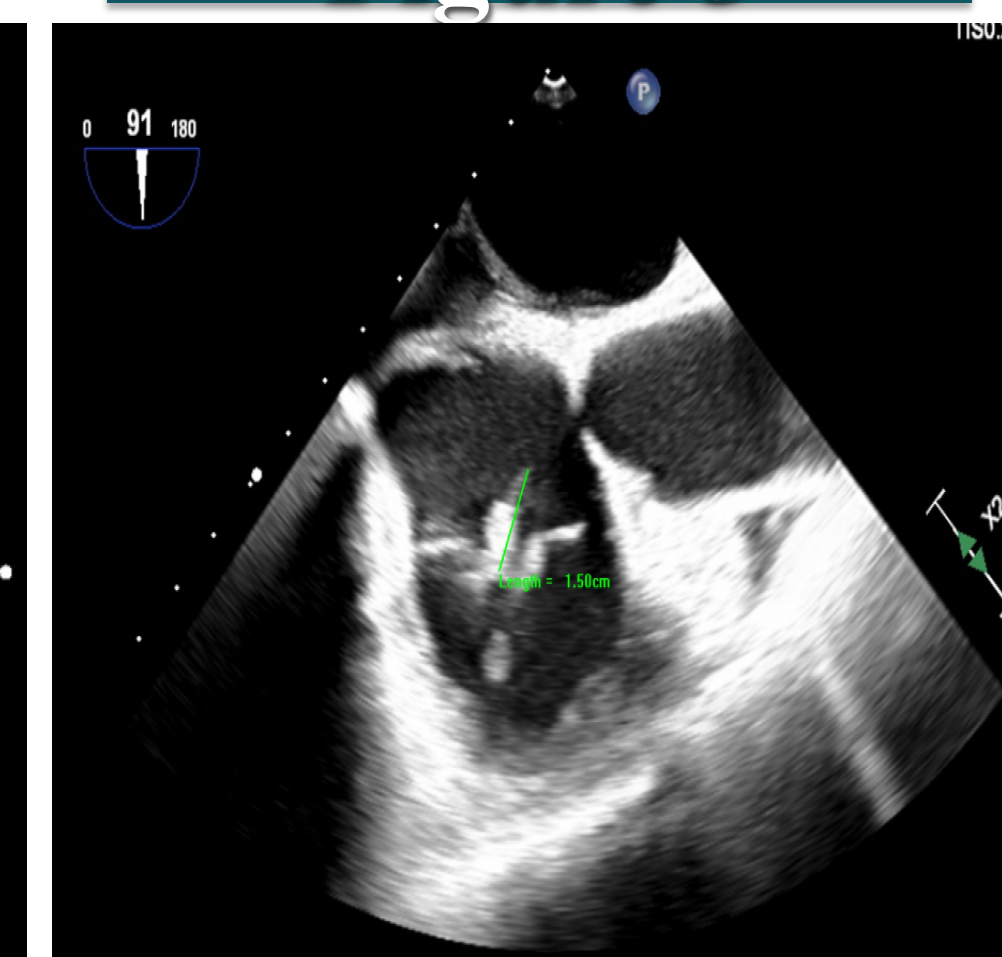
TEE (midesophageal short axis view) showing tricuspid valve vegetation (left) and associated moderate tricuspid regurgitation (right) prior to AngioVac

Figure 2



TEE (midesophageal bicaval view) showing extent of vegetation prior to AngioVac

Figure 3



TEE (midesophageal bicaval view) showing vegetation size after AngioVac

Figure 4



Actual vegetation retrieved from AngioVac system