Embolized Transcatheter Mitral Valve: Rare But Devastating Complication

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**Embolic Transcatheter Mitral Valve: Rare But Devastating Complication**

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**Abstract**

Introduction: 83 year old female who presents with heart failure exacerbation due to severe bio prothetic mitral valve dysfunction  

Past Medical History: CHF, paroxysmal atrial fibrillation, CKD Stage III, MVR with St. Jude bio prothetic valve, Maze procedure, left atrial appendage exclusion, and PFO closure  

Who TMVR: Due to her frailty and co-morbidities, she was deemed to not be a surgical candidate. TMVR was attempted  

Case Presentation: General anesthesia, OETT, TEE guidance, invasive monitoring, and a sentinel cerebral protection device. During deployment the valve embolized into the LV  

The embolized valve was snared and multiple attempts were made unsuccessfully to retrieve the embolized valve percutaneously with balloon dilatation  

Post Operatively  

The embolized valve was snared and multiple attempts were made unsuccessfully to retrieve the embolized valve percutaneously with balloon dilatation

**History of Present Illness**

- 83 year old female who presents with heart failure exacerbation due to severe bio prothetic mitral valve dysfunction  
- Past medical history of CHF, paroxysmal atrial fibrillation, CKD stage III, MVR with St. Jude bio prothetic valve, Maze procedure, left atrial appendage exclusion, and PFO closure  
- Due to her frailty and co-morbidities, she was deemed to not be a surgical candidate. TMVR was attempted

**Methods**

- General anesthesia, OETT, TEE guidance, invasive monitoring, and a sentinel cerebral protection device. During deployment the valve embolized into the LV  
- The embolized valve was snared and multiple attempts were made unsuccessfully to retrieve the embolized valve percutaneously with balloon dilatation

**Patient Transferred to OR**

- Patient emergently transferred to the OR for retrieval of the mitral valve prostheses from the LV and subsequent MVR with the Edwards Sapien 3 26 mm valve via median sternotomy, and cardiopulmonary bypass  
- Complete occlusion of the right MCA with extensive infarct throughout the right MCA distribution  
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**Embolic Valve**

- intraop uneventful and transferred to CVCU for recovery on minimal vasopressors  
- Patient did not wake up post-operatively and was sent for CT head and CT angiogram head/neck  
- Complete occlusion of the right MCA with extensive infarct throughout the right MCA distribution and acute infarctions throughout the cerebellar hemispheres and left parietal temporal lobe were found suggestive of embolic stroke

**Post Operatively**

- After discussion comfort care was initiated and support was withdrawn leading to demise

**References**


**Discussion**

+ TMVR is a less invasive alternative in patients with high or prohibitive surgical risk with high rate of successful valve implantation and excellent hemodynamic results  
+ But, peri-procedural complications and all-cause mortality are relatively high  
+ Malposition and migration are common, embolization of the valve is a rare but devastating complication

**Patient Transferred to OR**

+ TMVR is a less invasive alternative in patients with high or prohibitive surgical risk with high rate of successful valve implantation and excellent hemodynamic results  
+ But, peri-procedural complications and all-cause mortality are relatively high

**Thank You**

+ Thank you to my mentor Jayakar Guruswamy for helping me through this process

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**Figure 1. Fluoroscopic image showing the trans catheter valve is deployed in the left ventricle rather than at the site of the preexisting mitral valve where you want the valve to be ideally deployed**

**Figure 2. Mid esophageal aortic long axis view via TEE the symbolized trans catheter mitral valve in the left ventricle rather than at the site of the preexisting mitral valve**

**Figure 3. Mid esophageal mid chamber view via TEE the new valve is at the proper mitral position**

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