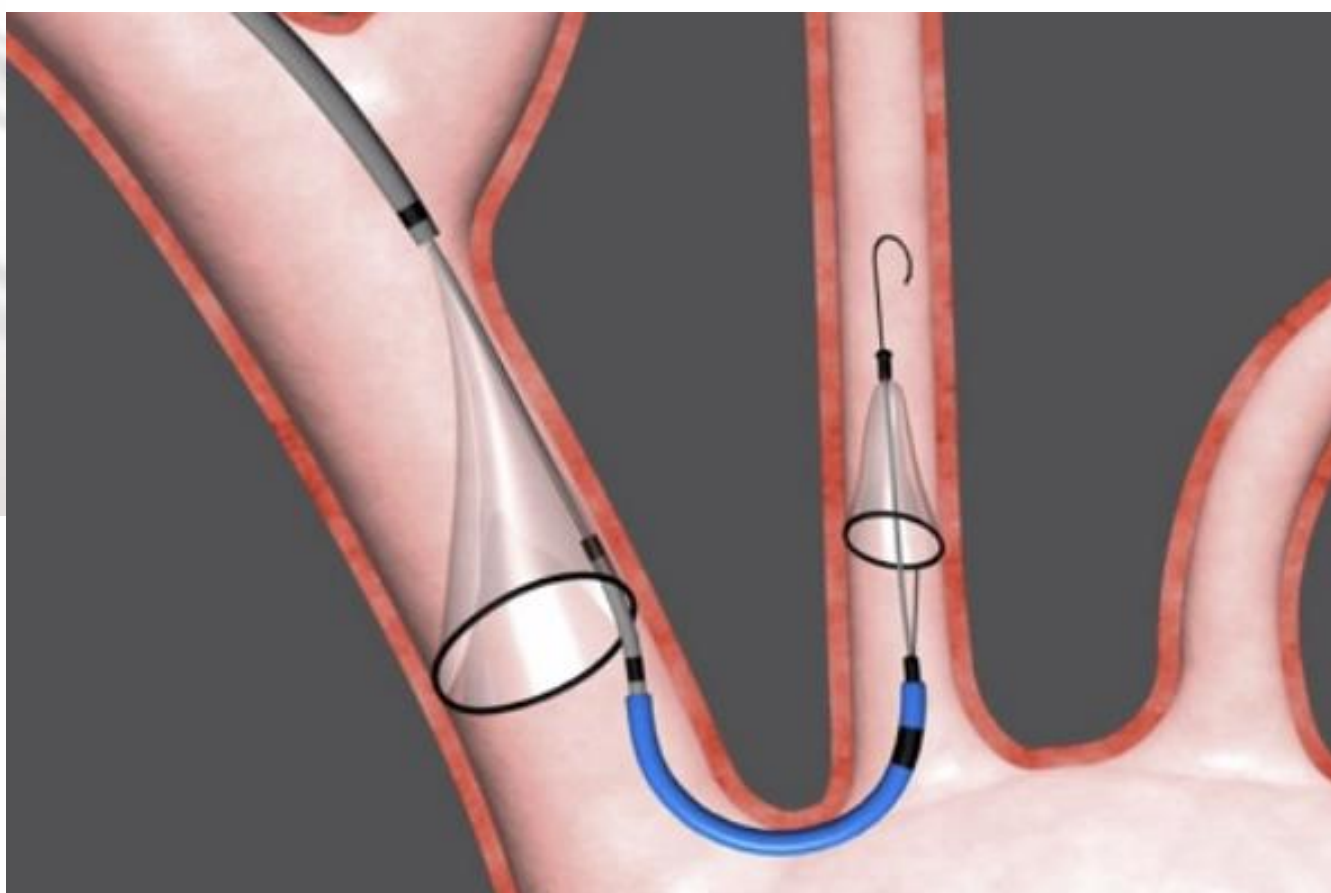
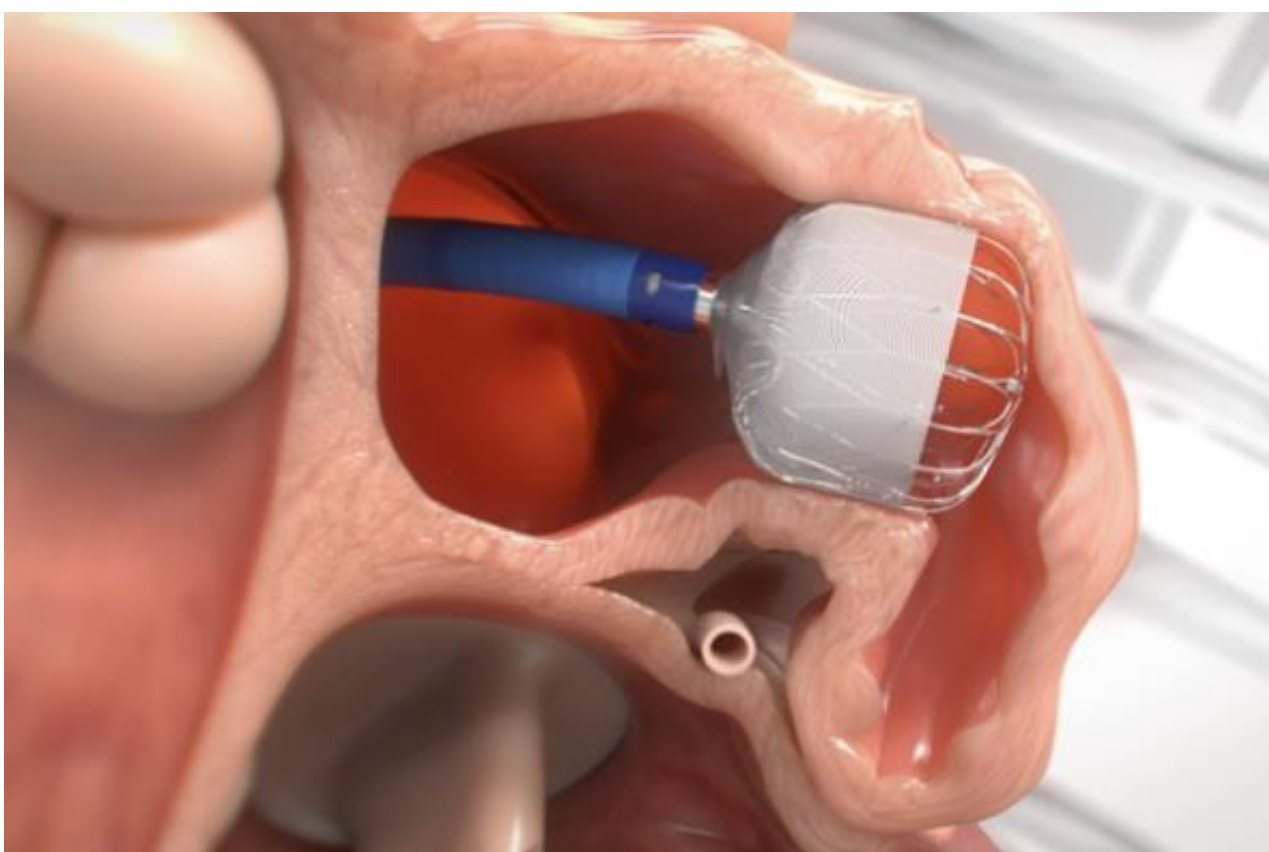


Perioperative stroke prevention with cerebral emboli protection device during LAA occlusion procedure: a case series

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INTRODUCTION

- Patients with atrial fibrillation have an increased risk of cardioembolic stroke.
- LAA (left atrial appendage) occlusion is an option for patients who cannot tolerate long-term anticoagulation.
- LAA has been found to be non-inferior to warfarin for stroke prevention with greater than 99.9% probability (Reddy et al., Jama, 2014).
- Transesophageal echocardiography (TEE) is used throughout the procedure.
- Historically, a preexisting LAA thrombus identified on TEE has been a contraindication to LAA occlusion due to increased risk of periprocedural stroke.
- The use of a cerebral emboli protection device can help mitigate the risks associated with Watchman implantation (pictured below) in a patient with a known LAA thrombus, or one identified by TEE preoperatively.

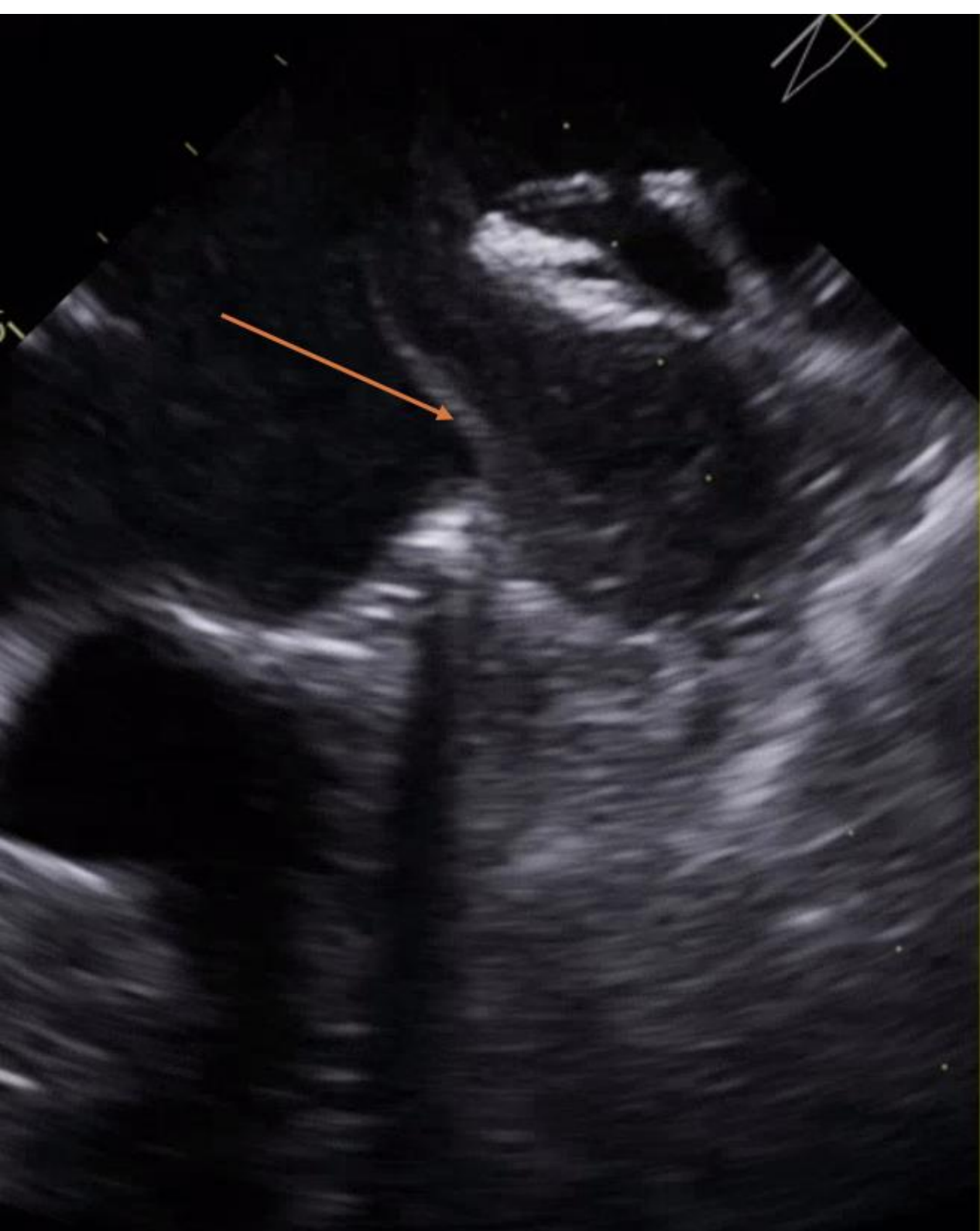


PATIENT CHARACTERISTICS

- **Contraindications to long-term anticoagulation include increased risk of bleeding due to falls, GI bleeding, and epistaxis**
- **Two patients had evidence of preexisting LAA thrombi and preoperative TEE identified thrombus in one patient**
- **No patients had stroke or other ischemic events perioperatively**
- **No pericardial effusions on postoperative ECHO**

Mean age	73	
CHADVASc	4-6	
HASBLED	3-4	
Comorbidities	Dementia Smoking history CKD	Heart failure Diabetes Hyperlipidemia

IMAGES



METHODS

We present **three patients** who underwent placement of cerebral emboli protection system prior to LAA occlusion with Watchman device for stroke prevention.

DISCUSSION

- Three patients underwent successful Watchman procedure with cerebral emboli protection device
- No patients experienced postoperative ischemic events.
- Further studies, including randomized controlled trials are needed to fully assess the efficacy of this intervention.
- There are RCT's underway to measure the efficacy of a cerebral protection system in preventing strokes during left atrial appendage closure.
- Studies such as this will be useful for informing surgical recommendations.

REFERENCES

- Photo 1: Watchman Device.
<https://www.templehealth.org/services/treatments/watchman-device>
- Photo 2: Claret Medical Sentinel Device. <https://www.tctmd.com/news/fda-advisors-positive-sentinel-cerebral-protection-device-tavr>
1. Reddy, V. Y., et al. (2014). "Percutaneous left atrial appendage closure vs warfarin for atrial fibrillation: a randomized clinical trial." Jama 312(19): 1988-1998.
 2. Meincke, F., et al. (2017). "Rationale of cerebral protection devices in left atrial appendage occlusion." Catheter Cardiovasc Interv 89(1): 154-158.