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## Initial experience with epicardial left atrial appendage ligation using the lariat suture closure device

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**Background:** Atrial Fibrillation (AF) portends a progressively higher risk of embolic complications, reflected by a patient's CHADS<sub>2</sub>-VA2SC score. Unfortunately many patients are unable or ineligible to take anticoagulation secondary to bleeding complications. Recently, the Lariat suture delivery device has become available to effectively deliver a single ligature around the left atrial appendage (LAA), with closure rates of 98% at 1 year.

**Methods:** 21 patients (15M, 6F) Age  $81 \pm 7$  years, CHADS<sub>2</sub>-VA2SC of  $4.5 \pm 1.2$ , with both persistent and paroxysmal AF underwent CT scanning of their LAA to evaluate their candidacy for the Lariat procedure. 13/21 LAA's were deemed adequate, and were offered the procedure. 7/13 patients refused the procedure, and 6 underwent LAA closure. One patient was discovered to have an anatomical variant which prevented transseptal puncture, so the procedure was aborted. The remaining 5 successfully underwent the Lariat procedure.

**Results:** 8/21pts were unable to undergo the procedure secondary to their LAA anatomy. 5 LAA were behind the pulmonary artery, 2 were larger than 40mm, and 1 patient had pectus excavatum. Immediate, complete closure was achieved in 5/5 patients without complications. 4/5 had TEE performed in 3 months with persistent complete occlusion of LAA. 2 patients had exacerbation of CHF as outpatients that required escalation of their diuretic therapy. Average procedure time was  $94 \pm 20$  mins and fluoroscopy time was  $30.8 \pm 11$  mins. No embolic complications have been observed in  $171 \pm 115$  Days of follow up.

**Conclusion:** The Lariat suture closure device can completely close the LAA without significant procedural risk. A significant number of patients are currently excluded from undergoing the procedure secondary to LAA anatomy.

### Biography

Sheetal Chandhok completed a 6 year accelerated BA/MD program at Lehigh University and MCP/Hahnemann Medical School. He completed residency at University of Pennsylvania and Cardiology and Electrophysiology at University of Pittsburgh. He has been practicing for 6 years at the Main Line Health System outside of Philadelphia, PA.

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