

Introduction

- In patients with atrial fibrillation (AF) and a contraindication to anticoagulation, left atrial appendage occlusion (LAAO) can be performed to reduce stroke risk
- Significant gender differences exist in areas of procedural AF management, such as ablation, which is more commonly performed in male patients¹⁻⁵
- A recent study showed women undergoing LAAO tend to be older, more likely to experience an adverse event, higher prevalence of paroxysmal AF, prior stroke, uncontrolled hypertension, but a lower prevalence of congestive heart failure, diabetes, and coronary artery disease⁶

Objective

To examine gender differences in management and outcomes in patients undergoing LAAO device implantation

Methods

- We reviewed the charts of all patients who underwent LAAO (Watchman™) at our urban, academic institution from Nov. 2015 to Sept. 2020
- We compared baseline characteristics utilizing χ^2 and ANOVA tests and evaluated the association between gender and discharge anti-thrombotic therapy using logistic regression and mediation analysis

Results

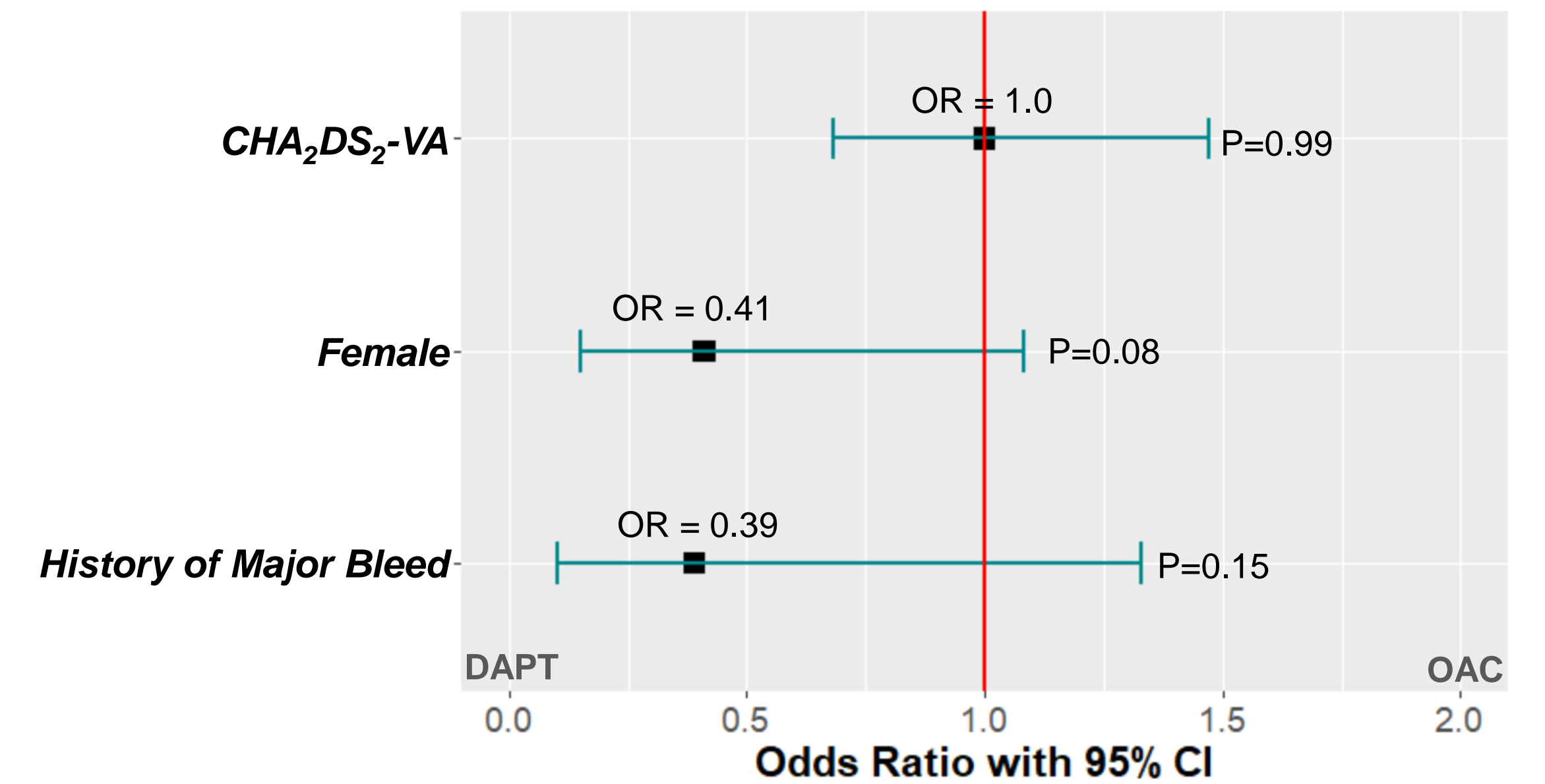
- A total of 124 consecutive patients were identified (female, n=62), with females being older, on average (75.5 ± 8.1 years vs. 71.6 ± 9.1 years, $P=0.01$). There was no difference in hypertension, diabetes, prior stroke, and heart failure between genders. **See Table 1**
- Females had higher CHA₂DS₂-VASc score, even when removing sex category (4.1 vs 3.5, $P=0.02$). **See Table 1**
- Females more frequently had major bleed as the indication for LAAO (89% vs 74%, $P=0.04$). **See Figure 1**
- There was no statistically significant difference between genders' discharge anti-thrombotic after adjusting for major bleeding event and CHA₂DS₂-VA. **See Figure 2.** A mediation analysis showed that this difference was not mediated by indication for LAAO (7%, -0.06-0.27, $P=0.48$)
- Post-procedural complications were similarly uncommon in females and males (4.8% vs. 4.8%, $P=1.0$)

Table 1: Baseline Characteristics*

Characteristic	Female, n(%) (n=62)	Male, n(%) (n=62)	P-value
Age (years)	75.5 +/- 8.12	71.6 +/- 9.06	0.01
CHA ₂ DS ₂ -VASc Score	5.08 +/- 1.52	3.50 +/- 1.24	<0.000
CHA ₂ DS ₂ -VA (without sex category)	4.08 +/- 1.52	3.50 +/- 1.24	0.02
HAS-BLED Score	3.97 +/- 1.06	3.77 +/- 0.88	0.27
Hypertension	50 (81)	53 (85)	0.47
Diabetes Mellitus	29 (47)	30 (48)	0.86
Cerebrovascular Accident	22 (35)	15 (24)	0.17
Coronary Artery Disease	23 (37)	27 (44)	0.46
Peripheral Vascular Disease	10 (16)	11 (18)	0.81

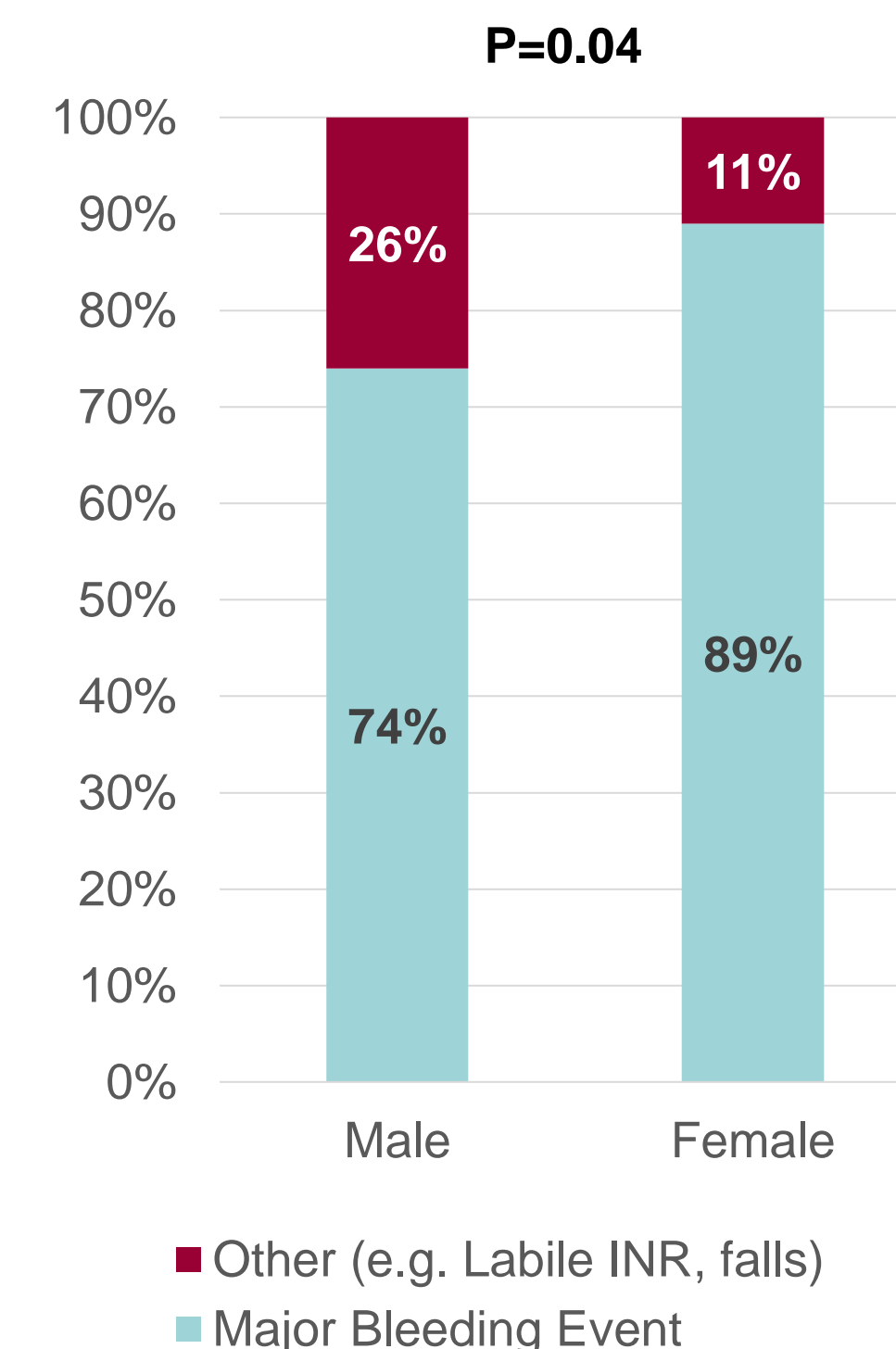
*P values are derived from ANOVA for continuous variables and χ^2 for categorical variables. Fisher's Exact Test was used instead of χ^2 with frequencies less than 5

Figure 2: Discharge Anti-Thrombotic Therapy**



** P-value is based on a logistic multi-variate regression model adjusting for CHA₂DS₂-VA and History of Major Bleed. The CHA₂DS₂-VA score does not include +1 for sex category. This analysis was restricted to November 2018 - 2021. If patient was discharged on both OAC and an anti-platelet, they were classified in the OAC category.

Figure 1: Indication for LAAO*



Conclusions

- We found that women undergoing LAAO were older, had higher stroke risk even after accounting for gender, and were more likely to have a history of major bleed
- We found no gender differences regarding prevalence of hypertension, diabetes, heart failure, or prior stroke. This could be attributed to our smaller sample size
- Despite higher stroke risk, there may be a trend for females to be less likely discharged on OAC than men. This potential difference was not mediated through the differential history of major bleed
- Future research using multicenter populations can help determine whether disparities exist in discharge antithrombotic management