RELATIONSHIP BETWEEN THE CHA2DS2-VASc SCORE CALCULATED IN PATIENTS WHO UNDERWENT ELECTIVE ELECTRICAL CARDIOVERSION AND THE PRESERVATION OF SINUS RHYTHM IN THE MONTHS AFTER THE PROCEDURE

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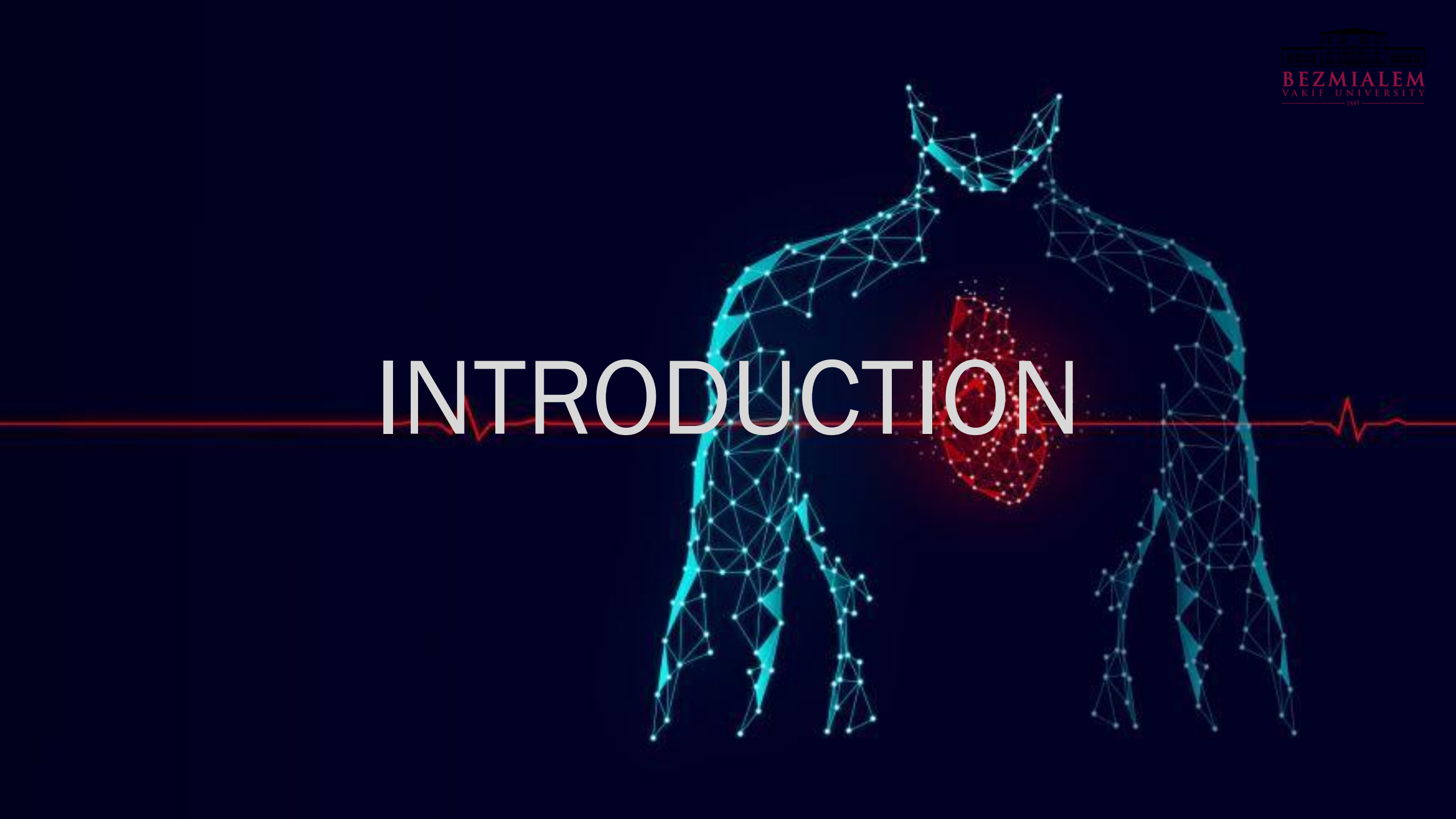
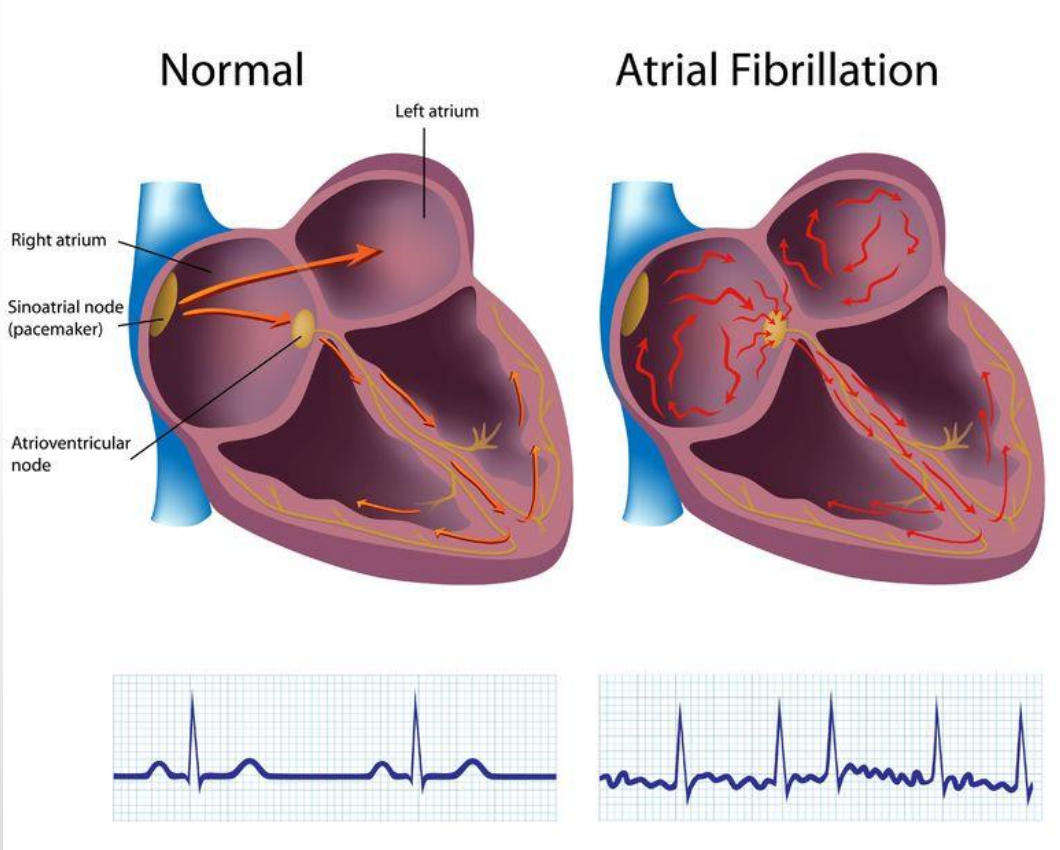

INTRODUCTION

WHAT IS ATRIAL FIBRILLATION ?

- Atrial fibrillation (AF) is an irregular and often very rapid heart rhythm (arrhythmia) that can lead to blood clots in the heart
- The most common rhythm disorder.
- This can cause problems including palpitation, dizziness, shortness of breath and tiredness.
- It increases the risk of stroke, heart failure and other heart-related complications



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CHA_2DS_2 – VASc Score for Atrial Fibrillation Stroke Risk

CHF	+1
Hypertension	+1
Age ≥75	+2
Diabetes	+1
Stroke/TIA/VTE	+2
Vascular Disease	+1
Age 65-74	+1
Sex (female)	+1

Score	Risk of stroke	
0	0.2%	Low
1	0.6%	Moderate
2	2.2%	High
3	3.2%	
4	4.8%	
5	7.2%	
6	9.7%	
7	11.2%	
8	10.8%	
9	12.2%	

1(male): oral anticoagulant should be considered

≥2: oral anticoagulant is recommended

The Art of Cardiology

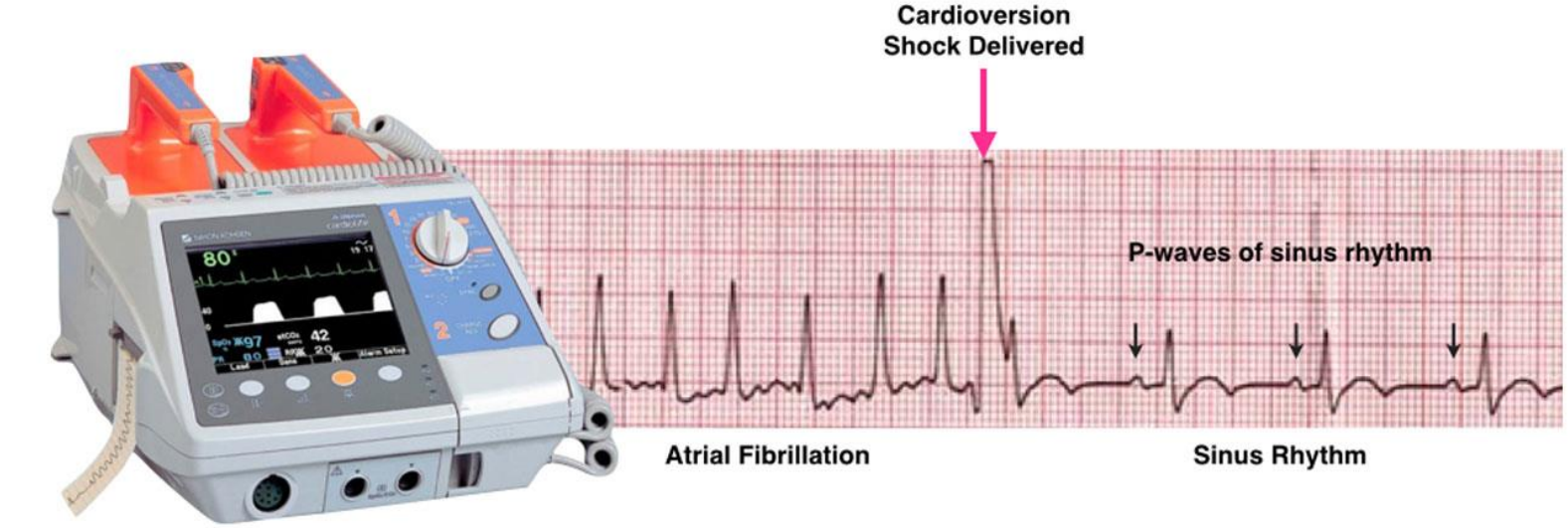
CHA2DS2-VASc

Some studies showed that the CHA2DS2-VASc score may have a potential role as a marker of atrial electrical or mechanical remodeling responsible for post-CV AF recurrences

ELECTRICAL CARDIOVERSION

- ✓ Cardioversion, is a common treatment that is used for converting an arrhythmia into a sinus rhythm. It can be done pharmacologically or electrically.

- ✓ Electrical cardioversion (CV) uses a machine and sensors (electrodes) to deliver quick, low-energy shocks to the chest. It delivers electrical energy synchronously with the QRS complex and converts atrial fibrillation to sinus rhythm.



External Cardiac Defibrillator

IMPORTANCE AND AIM

AF recurrence after CV remains common and ranges from 60% up to 80% during the first year after CV

The aim of our study is to calculate the relationship between the CHA2DS2-VASc score and the preservation of sinus rhythm after electrical CV in patients with AF.

MATHERIAL & METHOD

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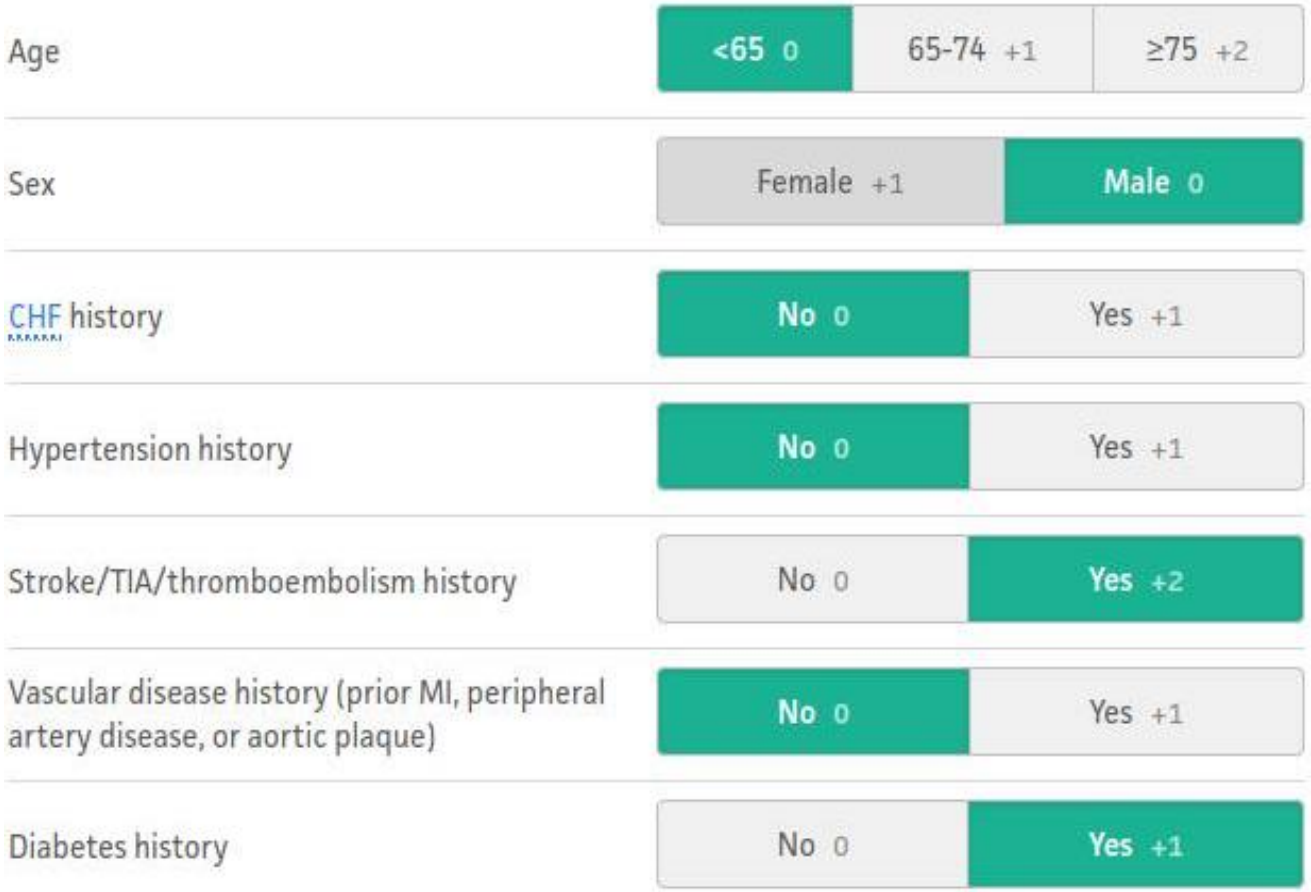
In this study, 115 patients between the ages 18-90 with AF who applied to the Cardiology Clinic of Bezmialem Vakıf University Faculty of Medicine and who underwent elective electrical cardioversion in the Coronary Intensive Care Unit were included.

In the monitorings, the rate of preservation of the sinus in the 1st and 3rd months of consecutive patients were evaluated. Demographic data of the patients (age, gender, comorbidity) were obtained by talking to patients.

CALCULATION OF CHA2DS2-VASc SCORE



- ✓ Patients who have had a stroke and are over the age of 75 were given 2 points and other characteristics were given 1 points.
- ✓ CHA2DS2-VASc score had run on a sliding scale from 0-10.

PRESERVATION OF SINUS RHYTHM

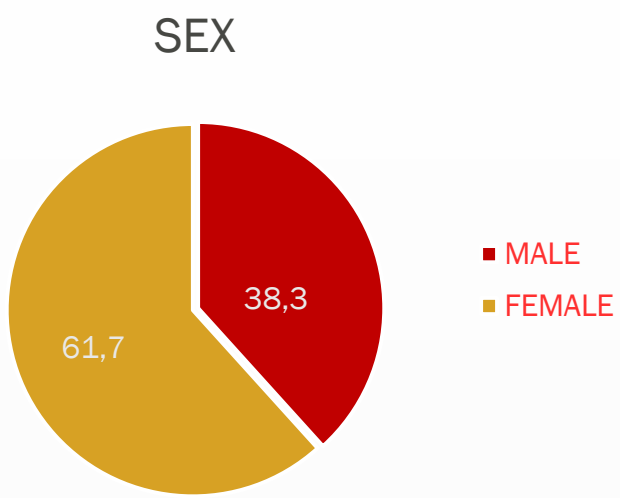
	After the procedure	1st month	3rd month
AF – 1			
SR - 0			

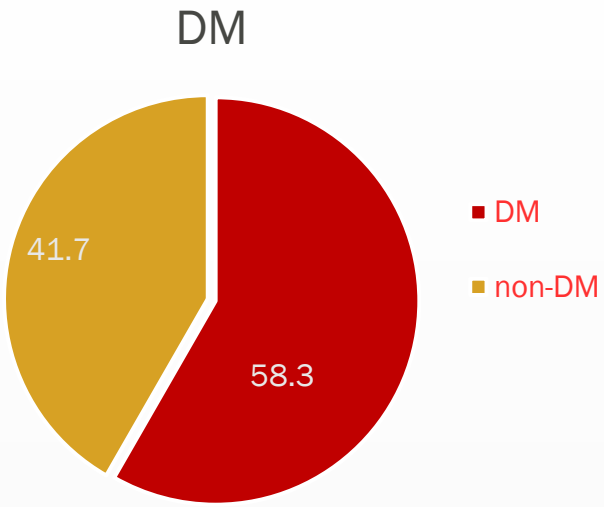
AF= Atrial Fibrillation SR=Sinus Rhythm

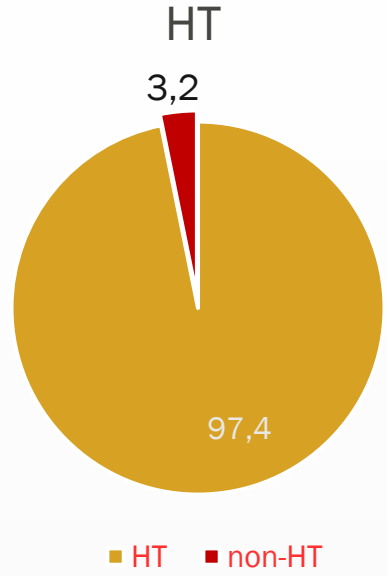
- Fisher-Freeman-Halton Exact Test was used for statistical analysis of categorical variables between groups and $p<0.05$ was considered statistically significant.

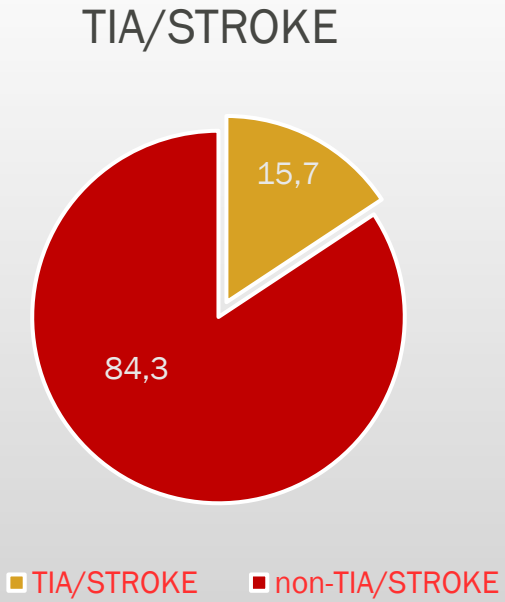
RESULTS

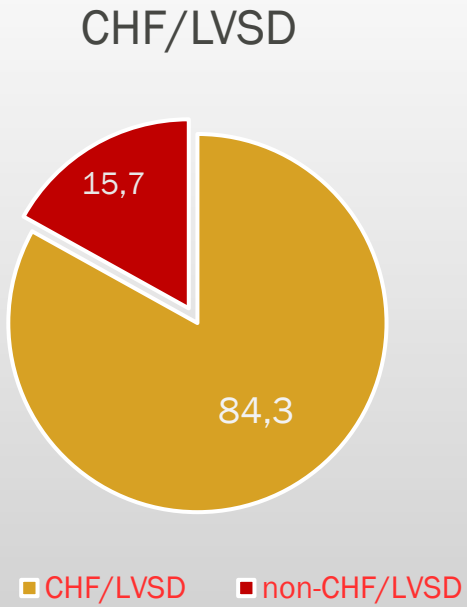
CHARACTERISTICS OF THE PATIENTS

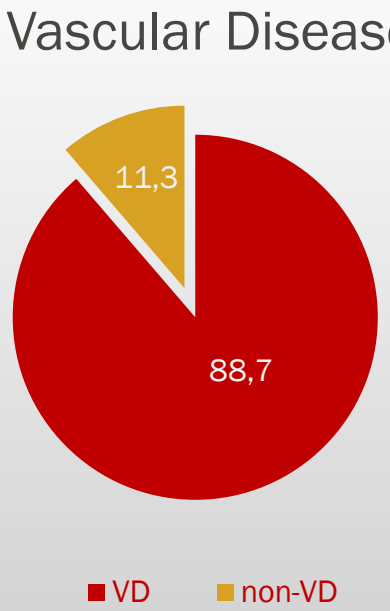




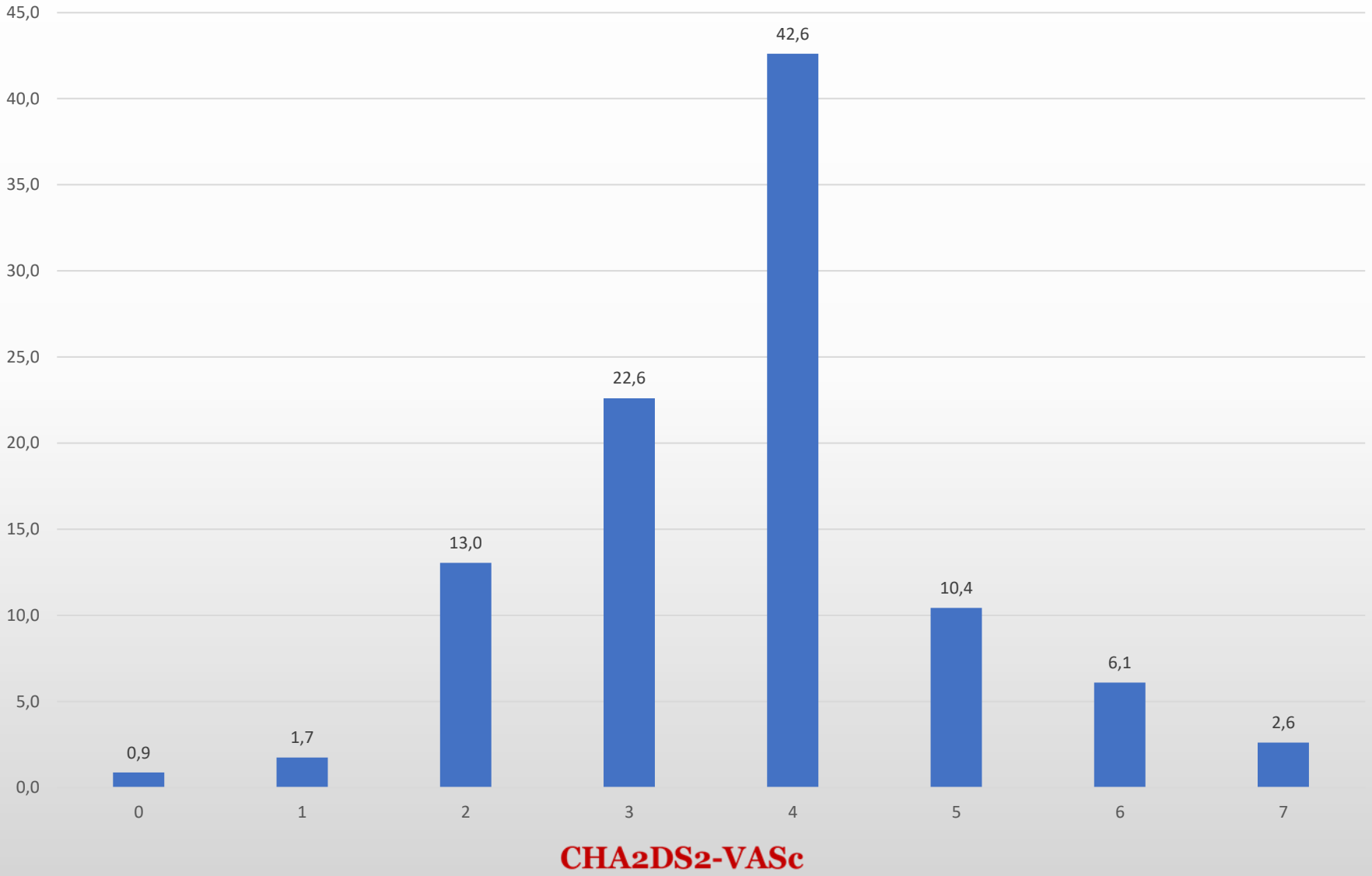




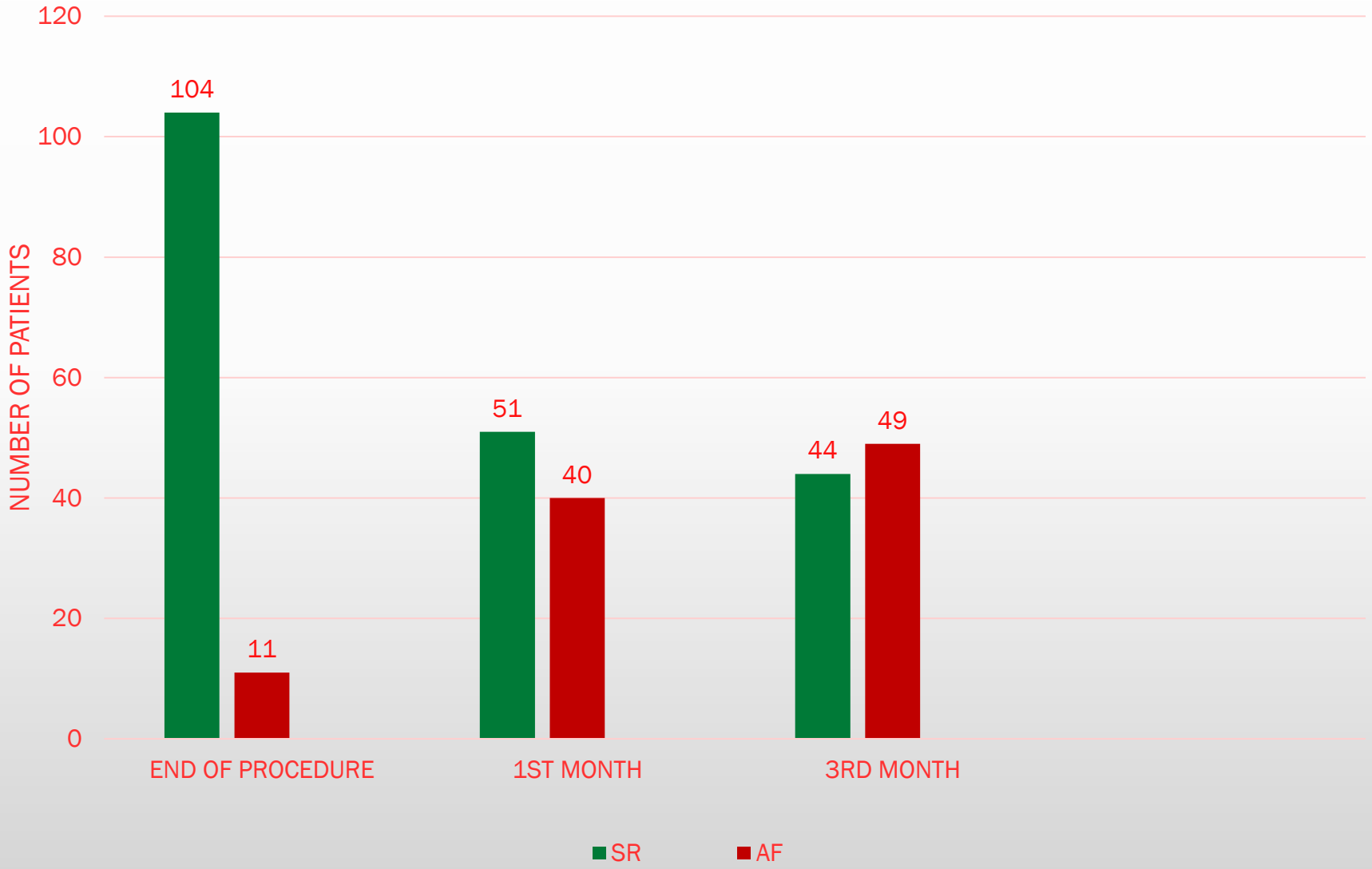




CHA2DS2-VASc PERCENT



RECURRENCE OF ATRIAL FIBRILLATION



P VALUES

CHA2DS2VASC * END OF PROCEDURE

Chi-Square Tests

	Exact Sig. (2-sided)
Fisher-Freeman-Halton Exact Test	0,011

CHA2DS2VASC * 1ST MONTH

Chi-Square Tests

	Exact Sig. (2-sided)
Fisher-Freeman-Halton Exact Test	0,023

CHA2DS2VASC * 3RD MONTH

Chi-Square Tests

	Exact Sig. (2-sided)
Fisher-Freeman-Halton Exact Test	0,011

	p	OR	95% C.I.for OR	
			Lower	Upper
Age	,042	,916	,842	,997
Sex	,486	1,664	,396	6,989
DM	,082	,220	,040	1,214
CHF/LVSD	,396	,434	,063	2,979
TIA/STROKE	,011	7,726	1,604	37,219
Vascular Disease	,551	,536	,069	4,159

- Additionally, according to logistic regression analysis model age and history of stroke were found to have a statistically significant effect on conversion to sinus rhythm at the end of the procedure (p=0.042; p=0.011).

DISCUSSION

- ✓ The strength of this study comes from our identfying the role of the CHA2DS2-VASc score in the prediction of long-term recurrences with the follow-up of AF recurrence for months.
- ✓ We also identified increasing age and history of stroke as an important predictor of early recurrence of AF in our population.

Limitation:

- ✓ Most participants reported no heary failure and vascular disease. Future studies should look into these parameters on the prediction of AF recurrense.

CONCLUSION

- ✓ The CHA2DS2-VASc score is a simple, easy and reliable scoring system that has a relatively high performance for predicting unsuccessful electrical CV and recurrence of Atrial Fibrillation

- ✓ Further larger population studies are required to validate our data and to evaluate the prognostic role of the CHA2DS2-VASc score in patients undergoing electrical CV.

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THANK YOU FOR YOUR INTEREST!

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