



Opinion Article

Assesment of the Complications of Pulmonary Vein Isolation Using and Risk Indicators in Big Community Hospital

M Haj Abdo^{1*}, L S Ziegelmeier¹, P Reiche¹, V Thaci-Kadriu¹ and K Seidl¹

Department of cardiology, Klinikum Ingolstadt, Ingolstadt, Germany

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*Corresponding author: M Haj Abdo, Department of cardiology, Klinikum Ingolstadt, Ingolstadt, Germany

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Opinion

Background

Pulmonary vein isolation (PVI) has become a cornerstone of the invasive treatment of atrial fibrillation. A variety of techniques has been used to the (PVI) like cryoballoon (CB), conventional radiofrequency (C-RF) and multielectrode phased radiofrequency ablation (MP-RF) [1]. Mild and moderate complication are reported in 8-10 % and severe complications in 1-3 % [2,3].

Aim of the study

This study aims to compare complications and follow-up outcome of PVI in patients with paroxysmal atrial fibrillation.

Methods

The data were extracted from the Klinikum Ingolstadt/Germany. Procedural and follow-up outcomes in patients treated with conventional radiofrequency or cryoballoon ablation from 06.2015 to 06.2016 were compared. Subgroup analysis was performed to identify variables associated with complications.

Results

549 patients, 224 women and 325 men were included in the analysis, mean body mass index was 29.15 (\pm 5.66 kg/m²), mean CHA₂DS₂Vasc score was 2.3 (\pm 1.5) and mean age was 62.59 (\pm 10.30 years)

The reported mild and moderate complication was 9.7 % and the severe complications was 2.9 %.

Patients treated with C-RF developed more complications like vascular complications and cardiac tamponade than CB.

Age, CHA₂DS₂Vasc score, COPD, diabetes mellitus type II and female sex were independent risk factors of the complications.

Conclusion:

Pulmonary vein isolation was associated with a low rate of complications.

Female sex and CHA₂DS₂Vasc score were independent risk factors for developing the complications.

References

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| | Men | Women |
|---------------------------------------|-------------------------------------|-------|
| Patients | 325 | 224 |
| Mean BMI | 29.15(\pm 5.66 kg ²) | |
| CHA ₂ DS ₂ Vasc | 2.3 (\pm 1.5) | |
| Mean Age | 62.59 (\pm 10.3) | |