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Postervorträge - Resultate der Vorhofflimmerablation

P854 - Clinical relevance of early recurrence of Atrial Fibrillation following Pulmonary Vein Isolation: Analysis of 3653 events recordings in 60 Patients

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Background: The clinical significance of early recurrence of atrial fibrillation (AF) within 14 days following pulmonary vein (PV) isolation (PVI) as a predictor for ongoing AF activity is until now controversial. We assessed the significance of an early recurrence of AF during the first 2 weeks after successful PVI in predicting a long term failure of the procedure.

Methods: The study cohort consisted of 60 patients (pt. 46 men, 55 ± 11 yrs, 52 paroxysmal, 8 persistent AF, LVEF: 58 ± 9%) and 65 PVI ablation procedures (abl. proced.) (225 PVs were ablated, 3.5 PV's ablated per pt. /abl. proced., radiation time: 62 ± 8 min, procedure duration: 200 ± 48 min). Radiofrequency catheter ablation was performed in 60 and cryo-ablation in 5 abl. proced. Daily and event-triggered ECG recording with transtelephonic transmission (ECG- TT) was performed during the first 3 months after ablation. All pt. were further monitored with ECGs and repetitive Holter for AF recurrences over a mean period of 10 (4-24) months.

Results: We studied two cohorts separately: (Group A) pt. with no AF recurrence within the first 14 days after ablation and pt. with an AF recurrence within 14 days (Group B). The 1st and the 2nd ablation procedures in 5 pt. were include in group A or B depending on the rhythm of the ECG-TT after ablation. There were no significant demographic differences in both groups. A complete isolation could be obtained in 110/115 PVs in group A and 107/110 PVs in group B. We analyzed 1853 ECGs (53 ± 23 /pt.) after 34 abl. proced. in group A and 1800 (57 ± 27 /pt.) after 31 abl. proced. in B. The first episode of AF occurs after 5 ± 7 day after ablation in the total population. The frequency of AF during the first 3 months after ablation was 3 ± 8 episodes in A and 25 ± 18 episodes in B (P < 0.001). 27/34 (79%) pts/ abl. proced. in A and 6/31 (19%) pts/ abl. proced. in B were free of AF (P < 0.001). 5 (15%) of A and 24 (74%) of B underwent a new PV ablation procedure after 3 months because of AF recurrences.

Conclusions: The absence of AF during the first two weeks following PVI indicates a high positive predictive value for a further AF free survival and a clinical success of the abl. proced. On the contrary, early AF recurrence after PVI is a strong indicator for further AF activity in 74% of these patients leading to a reablation procedure in the majority of this patient cohort.