

**P4829****Atrial fibrillation ablation: the added value of adenosine test in confirming pulmonary vein isolation**

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**Introduction:** Adenosine test has been increasingly used to confirm pulmonary vein isolation (PVI) in patients undergoing ablation of atrial fibrillation (AF). However, its impact on the success of ablation remains unknown.

**Purposes:** To evaluate the results of the adenosine triphosphate (ATP) test in patients undergoing PVI and assess the success of ablation related to the use of this test (adenosine-guided PVI versus conventional PVI).

**Methods:** Single-center prospective study of consecutive patients undergoing first AF ablation procedure, started at January 2013. After ablation, the persistence of PVI was tested with adenosine triphosphate administration (15–30mg by intravenous route). When adenosine triphosphate-induced pulmonary vein conduction (termed as reconduction) was observed, additional energy applications of radiofrequency were applied to obtain persistent isolation on retesting. Cardiac event recorder was performed at 7 days, 3, 6 and 12 months after ablation and annually from the 2nd year.

The adenosine triphosphate-induced reconduction rate was evaluated depending on the pulmonary vein involved. The impact of adenosine test implementation in the success of the ablation at 365 days (recurrence of AF or supraventricular tachycardia) was determined by analysis of overall survival using Kaplan-Meier method.

**Results:** Adenosine test was performed on 151 patients, with reconduction detected on at least one of the pulmonary veins in 11 patients (33.8%) and in 17.6% of the 641 pulmonary veins evaluated, with no statistically significant difference between the different veins. The overall success rate of AF ablation at 365 days was 72% and did not differ significantly between adenosine-guided PVI versus conventional PVI (74.3% versus 70.8%,  $P = NS$ ), although the duration of follow-up had been shorter in the first group (median of 13.0 vs. 38.3 months;  $p < 0.001$ ).

**Conclusion:** The adenosine-induced reconduction occurs in about one third of the patients. However, the additional adenosine-guided energy applications do not seem to increase the overall success of ablation. We found no significant reduction in the 1 year incidence of recurrent atrial tachyarrhythmias by ATP-guided PVI compared with conventional PVI.