

Is Empirical Four Pulmonary Vein Isolation Necessary for Focally Triggered Paroxysmal Atrial Fibrillation? Comparison of Selective Pulmonary Vein Isolation Versus Empirical Four Pulmonary Vein Isolation.

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Aim

In this study the authors compared two different ablation strategies for the treatment of paroxysmal atrial fibrillation (AF): selective isolation of the pulmonary vein triggering AF (SePVI) versus empirical isolation of all the four pulmonary veins (EmPVI).

Methods and Results

Arrhythmogenic vein was identified by immediate recurrence of AF after cardioversion using infusion of isoproterenol as provocative manoeuvre. The exclusion criteria were as follows: non-paroxysmal AF, non detectable foci, non-PV foci, multiple PV foci or presence of structural heart disease. After exclusion of those, 77 patients out of 260 patients that underwent AF ablation, were enrolled in the study. After more than 3 years of follow up, 38% of patients treated with SePVI experienced AF recurrences versus 26% of patients treated with EmPVI ($p = ns$). Very late recurrences (later than 1 year) had a tendency to be more common in the SePVI

group (19%) than in the EmPVI group (6%) ($p = ns$). A redo ablation was performed in most of patients that experienced recurrences. Fifty-four percent of patients in the SePVI group exhibited a reconnection of PV previously disconnected, 38% exhibited triggers arising from the ipsilateral but not ablated PV and 8% from the contralateral PV. On the other hand, a reconnection of PV was demonstrated in 37% of patients in the EmPVI group, triggers arising from ipsilateral PV in 25% of patients and from the contralateral PV in 38% of patients.

Conclusion

Given these findings authors conclude that there was non statistically significant difference in the success rate between the two ablation strategies.

Comments

Authors suggest the shareable idea that a minimal approach may be applicable to a subgroup of younger and healthier patients manifesting par-

oxysmal AF clearly initiated by limited triggers. However, the main limitation of the study is that the resulting absence of statistically significant difference in success rate is certainly due to the small size of study population. In fact, increasing the number of patients, the same 12% of absolute difference would become statistically significant. Therefore, how to select patients that can be treat-

ed appropriately with a limited strategy remain to be clarified.

Disclosures

None to disclose in context of current subject matter