The Relation between Strict VISITAG Stability Setting and First Pass Pulmonary Vein Isolation in Ablation Index Guided Ablation for Atrial Fibrillation

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Introduction: Ablation Index (AI) guided pulmonary vein isolation (PVI) for atrial fibrillation (AF) results in high first pass isolation rate. Our aim was to evaluate the relation between VISITAG module settings and first pass isolation rate in AI-guided PVI for AF patients.

Methods: Sixty patients undergoing ablation for paroxysmal (n=29) or persistent AF (n=31) were included. In VISITAG setting, VISITAG size was 4mm, stability min time was 3 sec, force over time 25% min force was 3 g and inter lesion distance ≦ 4mm. AI value was ≧ 400 for posterior/inferior and 450 for anterior/roof wall. In all patients, AI and VISITAG setting was same except for stability max range. Stability max range was 2mm in 26 patients (group A), 2.5mm in 26 patients (group B) and 3mm in 8 patients (group C).

Result: First pass isolation was achieved in 54 patients (90%): Paroxysmal AF, 27 patients (93%) and persistent AF, 27 patients (87%). In group A, first pass isolation rate was higher than in group B and C (96% vs 88% vs 75%). All paroxysmal AF patients in group A, first pass isolation was completed. There were no significant differences in radiofrequency time and contact force variability between each groups.

Conclusion: Stability max range 2mm in VISITAG setting could achieve high first pass isolation rate for AF. In AI-guided PVI for AF strict VISITAG stability setting was desirable to achieve first pass isolation.