IDENTIFICATION OF LEFT ATRIUM ACTIVE GANGLIONATED PLEXI BY DENSE EPICARDIAL MAPPING AS ABLATION TARGETS FOR THE TREATMENT OF ATRIAL FIBRILLATION

Poster Contributions
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Backgrounds: Autonomic ganglionated plexi (GP) play a significant role in the initiation and maintenance of atrial fibrillation. GP are an optional target for a maze procedure. The purpose of this study was to evaluate the efficacy of left atrial GP ablation based on dense epicardial mapping.

Methods: Thirteen patients (age, 67±11 years; 9 males, 69%) with heart failure and concomitant atrial fibrillation (duration 67±105 months) underwent intraoperative epicardial electrophysiological mapping and GP ablation using the maze procedure at our institution. Twenty-four site, high-frequency stimulation (1000/min; output, 18 V; pulse width, 0.75 ms) was performed by placing tweezers directly onto the potential GP sites on the left atrial epicardium. The diagram of the epicardial mapping location is shown in the figure.

Results: Active GP were found in 12 (92%) of the 13 patients, and 11 of those patients (85%) had active GP between the right pulmonary veins and the interatrial groove. (R6, R10, R12) A 7-day event-loop recording demonstrated that 12 (92%) patients were maintained in sinus rhythm 3 months after the operation.

Conclusions: Dense epicardial mapping in the potential GP areas identified active GP locations in a high percentage of patients. GP between the pulmonary veins and the interatrial groove have high potential as ablation targets for treatment of atrial fibrillation.