The significance and importance of additional chemical ablation for Mitral-Isthmus dependent AFL

Kodai Negishi
Junjiroh Koyama
Shozo Kaneko
Katsuhide Hayashi
Hideharu Okamatsu
Yasuaki Tanaka
Takuo Tsurugi
Ken Okumura
Tomohiro Sakamoto

Introduction: Radiofrequency catheter ablation for Mitral-Isthmus dependent AFL is occasionally challenging due to the remaining of epicardial conduction via CS or Marshall vein. We report the validity of additional chemical ablation for Mitral-Isthmus dependent AFL that were experienced in our institution.

Methods: 11 patients (male: 7, mean: 69 years old) of Mitral-Isthmus dependent AFL were investigated and ablated as a first step as follows: ①endocardial mitral line、②LPV ridge ablation、③CS encircling ablation. And if complete bidirectional block was not performed, ④Chemical ablation for Marshall vein was added. Complete bidirectional block was achieved in 6 of 11 cases by using ①~③ steps, and 4 cases were added ④, and 1 case could not be performed ④ due to lack of Marshall vein.

Result: The course of the cases which were achieved complete bidirectional block is progressing favorably.

Conclusion: There is a limit to achieve a complete bidirectional block of mitral isthmus in using radiofrequency catheter ablation only, and in such cases, additional chemical ablation for Marshall vein is useful.