






Improvement in atrial macro-reentry/focal tachycardia ablation results using high-density mapping – a single center experience

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Aim: To determine in-hospital and long-term results of atrial macro-reentry and focal tachycardia ablation using high-density mapping.

Patients and Methods: In 2021 and 2022, a total of 47 consecutive patients with atypical macro-reentry and focal atrial tachycardia were ablated using the 3D mapping system. Ablations were performed using Carto 3 (Biosense Webster) mapping system in all patients, but high-density mapping catheter with new Carto Prime module was used only in patients ablated in 2022 (total 29).

Results: Ablation procedure was successful in 96% of all patients with no inducible tachycardia at the end. Mean follow-up period was 11 months (3-19 months) for all patients. Patients ablated in 2022 had shorter mean follow-up period of 7 months (3-11 months) compared to patients ablated in 2021, but majority of relapses occurred within first 6 months after ablation. Daily trans-telephonic ECG was used for follow up in 85% of patients (similar in both groups) and clinical follow up with Holter ECG after 6 months in 99% and 90% of patients, respectively (similar in both groups). 96% of patients ablated in 2022 were free from any tachycardia in the follow up period in comparison to 78% of patients ablated in 2021. Proportion of macro-reentry tachycardias was significantly higher in 2022 when high-density mapping was used, suggesting better understanding of the tachycardia mechanism.

Conclusion: High-density mapping system increases acute and short-term results of atrial macro-reentry and focal tachycardias¹.

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LITERATURE

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