




The coherent module use for mapping of atypical atrial flutter

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In 2018, a 75-year-old woman after circumferential pulmonary vein isolation with radiofrequency (RF) substrate modification and cavotricuspid isthmus ablation was referred for catheter re-ablation due to persistent atrial flutter (AFL). Because of electrophysiological study results, including entrainment pacing, activation mapping of atypical AFL with cycle length of 260 ms was performed in the left atrium as a first. Usage of multielectrode high-density mapping catheter (PentaRay; Biosense Webster Inc., CA, USA) and the new CARTO PRIME coherent mapping module (CARTO3 version 7, Biosense Webster Inc., CA, USA) revealed a critical isthmus on

a previously performed septal line (Fig. 1A). First RF applications (30–35 W) delivered by 3.5-mm irrigated tip ablation catheter (SmartTouch SF, Biosense Webster Inc., CA, USA), terminated AFL successfully (Fig. 1B, **Suppl. Video 1**). Achieving of the bidirectional block of the septal line was confirmed by site pacing maneuvers. No further atrial arrhythmia was inducible. The patient had no symptoms during 3-month follow-up.

The coherent activation mapping seems to be valuable tool in daily practice and may simplify the acquisition of electro-anatomical mapping of complex arrhythmia and also reduce the ablation time required for arrhythmia termination.

Conflict of interest: None declared

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Received: 28.03.2021

Accepted: 22.08.2021

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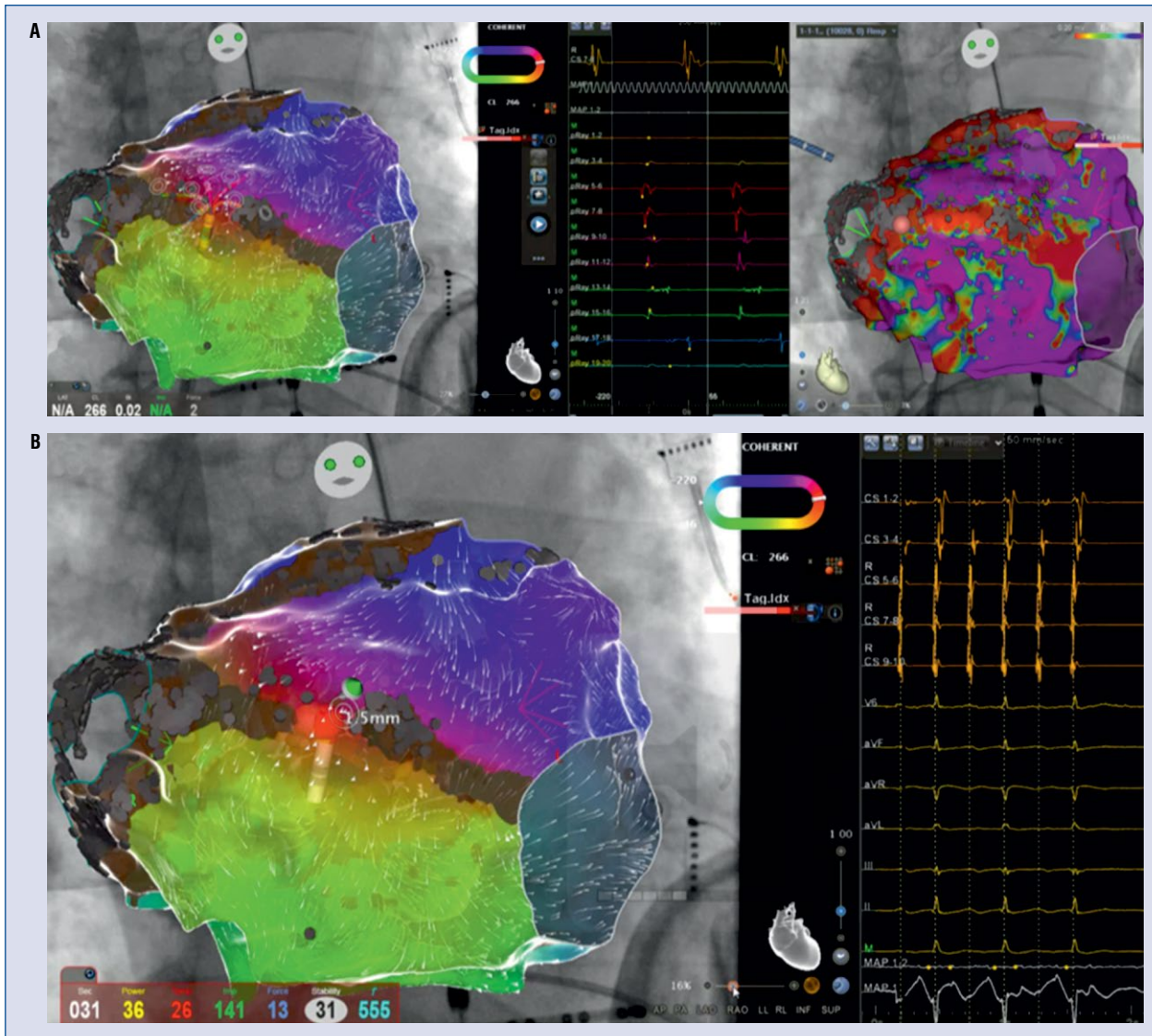


Figure 1. Coherent activation mapping of left atrium; **A.** Mapping catheter revealed critical isthmus on previously performed septal line (left side), bipolar voltage mapping (right side); **B.** Completed septal line and termination of the arrhythmia.