A Rare Form of Intra-isthmus Reentry

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Cavotricuspid isthmus (CTI)-dependent atrial flutter (AFL) includes counterclockwise (CCW) and clockwise (CW) reentrant circuits around the tricuspid annulus (TA). We herein demonstrate a rare case of sustained tachycardia associated with a reentrant circuit localized to the CTI with intra-isthmus reentry.

A 32-year-old woman with recurrent palpitations and typical AFL ECG (Picture, upper left) showed CW TA and proximal-to-distal coronary sinus (CS) activation (Picture, upper right). Differences in the post-pacing interval-tachycardia cycle length (PPI-TCL) around the TA indicated only the septal cavo-TA and possibly the CS in the circuit, with high RA, anterior TA and septal CTI low-voltage zones (Picture, lower right). The bipolar electrogram duration (ABL 2-3) at the CTI spanned 65% of the TCL (Picture, upper right). One radiofrequency application terminated the tachycardia. Reportedly, 38-50% of intra-isthmus reentry patients have undergone prior CTI ablation and >90% show CCW TA activation (1, 2). Our previously untreated patient displayed clockwise TA activation.

The authors state that they have no Conflict of Interest (COI).

References


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