

Cardioneuroablation for vasovagal syncope. Results from an EHRA Survey

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Background: Cardioneuroablation (CNA) is a recently introduced catheter-based therapy for vasovagal syncope (VVS), involving the modulation of the cardiac autonomic nervous system. Over the past decade, the body of evidence supporting CNA has consistently grown, sparking increased interest, and leading to broader adoption of this novel therapy for VVS treatment. However, several knowledge gaps persist, particularly concerning clinical indications, methodology, and long-term outcomes.

Purpose: The aim of this survey is to provide a comprehensive overview of the daily utilization of CNA in Europe.

Methods and Results: Among 204 participants, half reported that they are already performing CNA in their centres. The survey indicated CNA as an emerging therapy, with most centres initiating this treatment within the last two years. A significant majority of those who responded (71%) adopted a systematic approach by targeting ganglionated plexuses (GPs) in both the right atrium (RA) and left atrium (LA) as their first-line approach. The second most common approach (16%) involved performing ablation LA GPs only in the cases where there is no response following RA ablation. Figure 1 shows the GPs usually targeted for ablation. The most frequent procedural endpoint was the increase in the heart rate. Ninety percent of respondents relied on an anatomical approach for GP localization, while 59% also guided the procedure using electrogram analysis. Less frequently used approaches included pre-procedural imaging (20%), high-frequency stimulation (17%), and spectral analysis (10%). Only 11% of physicians discharged patients who underwent CNA without anticoagulation or antiplatelet therapy. In most cases (58%), respondents discharged their patients with anticoagulation, while 28% on single antiplatelet therapy. Overall, CNA is considered an effective procedure (80% of responders rating its effectiveness at or above 70%) and a safe procedure (with an estimated 1% rate of procedure-related complications, with symptomatic sinus tachycardia being the most frequently reported).

Conclusions: This survey confirmed high expectations for the future of this therapy, as most responders anticipate that CNA will be indicated as a first-line therapy for patients with recurrent cardioinhibitory VVS. Future efforts are necessary to standardize the procedural flow and peri-procedural patient management.

Which ganglionated plexuses usually do you target for ablation?

