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# Letters

## Procedural Characteristics and Medications to Prevent Sinus Node Artery Occlusion During Cardioneuroablation

We read with interest the paper by Scanavacca et al.[1] The authors report 2 patients with acute sinus node dysfunction (SND) during cardioneuroablation: one during a right-sided ablation and the second during a left-sided ablation. Coronary CT showed an occlusion of the sinus node artery (SNA) and a marked aortic angulation between the horizontal plane and the plane of the aortic annulus. The SNA occlusion was in front of the aorta in patient 1 and at the septal site of the interspace between the superior vena cava (SVC) and the left superior pulmonary vein antrum in patient 2. The authors report that the anatomical course of the SNA crosses the pericardial recess between the SVC and the left superior pulmonary vein antrum in 50% of the patients.

We have performed cardioneuroablation in >130 patients and have never observed acute SND. Of note, our median ablation index when targeting the anterior right ganglionated plexus (ARGP) is much higher than that reported by Scanavacca et al[2] (800 vs. 460). Compared with the target line guiding our procedure, the ablation tags shown in the figures in the report by Scanavacca et al[2] extend more septally, where the SNA occlusion is also visualized. We propose to limit the ablation set when targeting the ARGP to the posterior aspect of the SVC facing the right superior pulmonary vein antrum, as previously described, and to avoid any ablation facing the aorta (the so-called SVC/Ao GP).[2] Moreover, a high contact force could have pinched the SNA of these patients between the ablation catheter and the contralateral angulated aorta, compromising coronary flow and hence the cooling of the vessel wall during ablation. We propose to limit the contact force to 10 g when ablating at this site. We systematically use aspirin, which may exert a protective effect on SNA during ablation of the ARGP. Intravenous nitrates could theoretically have an additional SNA protective effect.

*Philippe Debruyne, MD

*Department of Cardiology
Imeldalaan 9, Imeldaziekenhuis
2820 Bonheiden, Belgium
E-mail: philippe.debruyne@skynet.be

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The author attests they are in compliance with human studies committees and animal welfare regulations of the author's institution and Food and Drug Administration guidelines, including patient consent where appropriate. For more information, visit the Author Center.

### REFERENCES

**1.** Scanavacca M, Rivarola E, Torres R, et al. Sinus node artery occlusion during cardiac denervation procedures. *J Am Coll Cardiol Case Rep*. 2022;18:1169-1175.

**2.** Debruyne P, Rossenbacker T, Janssens L, et al. Durable physiological changes and decreased syncope burden 12 months after unifocal right-sided ablation under computed tomographic guidance in patients with neurally mediated syncope or functional sinus node dysfunction. *Circ Arrhythm Electrophysiol*. 2021;14:e009747.