



Letter to the Editor

Reply to: “Coronary sinus reducer for the treatment of refractory angina”



Francesco Giannini ^{a,*}, Guglielmo Gallone ^a, Luca Baldetti ^a, Maayan Konigstein ^b, Liesbeth Rosseel ^c,
Neil Ruparelia ^a, Georgios Tzani ^a, Antonio Colombo ^a, Shmuel Banai ^b, Stefan Verheye ^c

^a Unit of Cardiovascular Interventions, IRCCS San Raffaele Scientific Institute, Milan, Italy

^b Department of Cardiology, Tel-Aviv Medical Center, Sackler Faculty of Medicine, Tel-Aviv University, Tel-Aviv, Israel

^c Cardiovascular Center, Ziekenhuis Netwerk Antwerpen Middelheim, Antwerp, Belgium

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Dear Dr. Guo

Thank you for your appreciation in our study. As you proposed, we have already investigated if better responses to coronary sinus Reducer treatment might have been present in relevant patient subgroups. We found, in REDUCE population [1], that the observed angina improvement was independent of any baseline clinical characteristic presented in the paper (data not shown). Thus, the reasons for the consistent 15–30% rate of non-response to Reducer implant across the literature still remain unknown. Indeed, identification of specific patient and procedural characteristics able to predict responders would improve device efficacy and patient outcomes in clinical practice.

In this regard, we have shown preliminary evidence suggesting that individual anatomic variants of the cardiac venous system may lead to insufficient pressure gradient generation across the device, blunting its mechanism of action, possibly accounting for clinical non-responsiveness [2]. Further, we are currently evaluating the impact of Reducer implantation upon myocardial ischemia by stress cardiac

magnetic resonance (CMR), which will hopefully give additional insights on this issue.

As you note, demonstrations of the physiological effects of Reducer are warranted. Objective evidence of ischemia reduction by dobutamine-echo and treadmill exercise test were recently determined [3]. First insights from our ongoing stress CMR investigation suggest a substantial impact of Reducer on ischemic burden [4,5]. The main study will (possibly) confirm these findings and elucidate the underlying mechanisms. Importantly, cardiopulmonary exercise test, evaluating how ischemia improvement translates clinically, shows significant beneficial effects of Reducer (data under current preparation for publication).

Conflict of interest

S. Banai is Medical Director of Neovasc, Inc. F. Giannini is a consultant for Neovasc Inc. S. Verheye is a consultant for Neovasc Inc. The other authors have no conflicts of interest to declare.

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* Corresponding author at: Interventional Cardiology Unit, San Raffaele Scientific Institute, Via Olgettina, 6020132 Milan, Italy.

E-mail address: giannini_fra@yahoo.it (F. Giannini).