Clinical Efficacy of the Coronary Sinus Reducer for Refractory Angina: A Single Center ‘Real-World’ Experience

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OBJECTIVE

The coronary sinus Reducer is a recently introduced device to treat patients with severe anginal symptoms refractory to optimal medical therapy and not amenable for conventional revascularization. We aimed to assess the safety and efficacy of the Reducer in a real-world cohort of patients with refractory angina.

METHODS

This is a single-center retrospective registry. Patients with severe anginal symptoms, objective evidence of myocardial ischemia using any adequate non-invasive modality and without options for conventional revascularization were regarded eligible for Reducer implantation.

RESULTS

Twenty-three patients (74% male, mean age 70±8 years, 91.3% previous bypass surgery, 82.6% previous percutaneous intervention, 47.8% previous myocardial infarction, 52.2% diabetes mellitus) underwent Reducer implantation. The safety endpoint (successful implantation of the first device without device-related adverse events) was met in all patients.

CONCLUSION

In this single center ‘real-world’ experience, the CS Reducer implantation was safe and demonstrated efficacy in the treatment of refractory angina at mid-term follow-up.

CCS functional class changes after Reducer implantation.

Reducer implantation in patients with (A-C) and without presence of Dual-Chamber leads (D-F). Angiogram of the coronary sinus (A and D), 9 French guiding catheter positioned deeply in the coronary sinus (B) implantation of the Reducer after retrieval of the 9 French guiding catheter to the proximal part of the coronary sinus (C and E), angiographic control of the coronary sinus after Reducer implantation (F).

Individual patients CCS class at baseline and 9 months after Reducer implantation.