The Coronary Sinus Reducer – a Device Based Therapy for Refractory Angina; Intermediate Efficacy and Safety Results of an Ongoing Open Label Registry

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**Background:**
An increasing number of patients with advanced coronary artery disease have refractory angina pectoris despite optimal medical therapy. Patients with refractory angina have a poor quality of life and increased level of anxiety and depression. The Coronary Sinus (CS) Reducer is a new option for the treatment of these patients. The Reducer is an hourglass-shaped stent-like device that gradually narrows the CS to increase venous pressure and force redistribution of coronary blood flow from the less ischemic subepicardium to the more ischemic subendocardium, thus relieving ischemia and angina. There are two ongoing CS reducer trials: The COSIRA (Coronary Sinus Reducer for Treatment of Refractory Angina) is a prospective, multicenter, randomized, double-blind sham-controlled clinical trial, and The REDUCE-1 registry which is an open label multicenter prospective study. We will present the preliminary results of the registry study.

**Methods:**
The open label registry is currently ongoing, recruiting patient with refractory angina and no option for revascularization. Baseline and 6 months follow-up evaluation consists of clinical assessment, as well as objective evaluation of ischemia by exercise stress test, dobutamine echocardiography and thallium scan.

**Results:**
Eleven patients have been clinically evaluated so far at baseline and 6-months after CS reducer implantation, and 6 patients have completed also the objective evaluation. Median CCS score diminished from 3 at baseline to 1 at 6 months, exercise duration was prolonged from 3.12 min to 5 min. Median summed rest score and summed stress score at thallium scan where reduced from 7.5(IQR 5-12) to 3(IQR 2-8) and from19(IQR 8-29)to9.5(IQR 3-12) respectively. Wall motion score at echo dobutamine improved from 1.8(IQR 1.5-2.5) to 1.15(IQR 1-2).

**Conclusions:**
The preliminary results of the first 15 patients from the REDUCE-1 registry will be presented at the International Conference of the Israeli Heart Association 2013