ICI 2018 - Abstract

Innovative Solutions for Heart Failure with Preserved Ejection Fraction (HFpEF)

Over 5.7 million people in the US and 20 million people worldwide suffer from heart failure. About half of these patients suffer from Heart Failure with Preserved Ejection Fraction (HFpEF) and are without effective treatment. CorAssist is developing the first device focused on treating HFpEF patients.

CorAssist is committed to developing innovative therapeutic products for treating HFpEF. The company's product, the CORolla® is the first device to directly improve cardiac diastolic function and can be implanted in Trans Apical or Percutaneous approach.

Our Solution - Innovative Devices for the Treatment of Heart Failure with Preserved Ejection Fraction (HFpEF)

CorAssist is developing a pipeline of elastic, self-expanding devices that are attached to the left ventricle, in minimally invasive procedures. The devices operate by transferring energy harnessed during systole (contraction) to the left ventricle during diastole (relaxation) to improve diastolic performance. CorAssist's devices deal with the core problems of HFpEF – the stiffening of the myocardial tissue and impaired relaxation – by directly enhancing the elastic characteristics of the left ventricular wall.

CORolla®

The CORolla® is an elastic device implanted inside the left ventricle in a minimally invasive procedure through Trans Apical Approach (TAA) or Percutaneous Approach (PA) in an off-pump procedure. The device applies direct internal expansion forces distributed on the left ventricle wall and the septum to improve diastolic function. In-Vivo safety evaluation was finalized demonstrating safety up to 24 months follow up. In a first-in-man stand-alone implantation we see improvement in both subjective clinical outcome demonstrating improvement in NYHA class and quality of life, and objective measures such as 6minutes walk test and diastolic echocardiographic indices.

ImCardia®

The ImCardia® is an elastic self-expanding device that is attached to the external left ventricular surface of the heart through a simple off-pump procedure. It applies an outward expansion force on the ventricular wall to improve diastolic dynamics and filling performance.

Clinical safety study: The ImCardia® was implanted in patients admitted for Aortic Valve Replacement due to Aortic stenosis. 24 months follow-up results revealed safety profile and showed trend of improvement in diastolic function parameters compared to the control group (Aortic valve replacement without ImCardia® implantation).