

New Technique for Repairing Ischemic Mitral Valve Regurgitation and Remodeling of the left ventricle (Mor)

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Clinical Background:

Ischemic Mitral valve regurgitation is a challenging medical problem that is caused by and results from REMODELING of the Ischemic left ventricle.

Remodeling leads to:

1. Displacement of Papillary muscles
2. Annular dilatation that prevents normal coaptation
3. Tethering of Mitral leaflets

This restricts mitral leaflet closure preventing proper coaptation which causes mitral regurgitation.

The standard operative technique to relieve ischemic MR is a Ring annuloplasty that reduces mitral annular area by bringing the dilated posterior annulus anteriorly to reduce the AP diameter and the leaflets into apposition.

Remodeling is a progressive process and continues after MR was initially treated by a ring therefore causing continuous LV shape changes with recurrence of the MR in 30% of the patients within 6 months from ring annuloplasty. The initial annular compensation for ventricular dilatation by a ring is not durable.

Several other techniques for preventing repairing IMR are known, however continues remodeling remains a major problem.

The invention:

A new line of devices is developed for repairing Ischemic Mitral regurgitation by reshaping the left ventricle.

The result is repairing of the existing MR and prevention of recurrent MR inducing "Reverse remodeling"

The different devices are intended for:

- 1) An "open technique" - For patients having primary open heart surgery for MR with or without CABG

2) A Minimal invasive "trans apical" technique - Either as a primary

procedure or use in patients when previous annuloplasty ring failed and continued remodeling caused recurrence of MR


3) A Trans catheter technique - Either as a primary procedure or use in

patients when previous annuloplasty ring failed and continued remodeling caused recurrence of MR

Status:

A PCT patent application has been submitted

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