Interventional cardiologists at Penn Medicine are performing percutaneous procedures with the MitraClip® System* to repair the mitral valve in patients with severe degenerative mitral regurgitation.

Degenerative or primary mitral regurgitation (DMR) is a disease of the mitral leaflets and chords that results in prolapse of one or both leaflets that causes the valve to leak. When the leak results in severe mitral regurgitation, the consequences can include symptoms of shortness of breath, heart failure and irreversible damage to the left ventricular myocardium.

Surgery is the preferred approach to mitral valve disease. Current surgical options for DMR include open surgical repair (which is preferred when feasible), MV replacement with biologic or mechanical prostheses, and more recently, minimally invasive transcatheter mitral valve repair. MV replacement is performed in patients with irreparable valve damage, but is considered a last resort owing to greater mortality risk and complications by comparison to MV repair. Open surgery, the gold standard for MV repair, can achieve good outcomes in the majority of patients treated, but is precluded for a variety of reasons in many symptomatic elderly patients with other medical co-morbidities.

The MitraClip, a novel percutaneous device first used at Penn Medicine in 2003 by Howard Herrmann, MD, and colleagues, was recently approved by the FDA (in part as a result of studies performed at Penn) for the treatment of patients with severe symptomatic DMR who have been judged by a heart team to be too high-risk for surgery. The MitraClip is introduced percutaneously via the femoral vein and fastened to the edges of the middle scallops of the posterior and anterior leaflets of the MV to create a double orifice—the Alfieri surgical repair. Recent ACC/AHA guidelines recommend consideration of transcatheter repair for severely symptomatic patients with chronic severe primary (degenerative) MR, reasonable life expectancy and prohibitive surgical risk attributable to severe comorbidities.

*(Evalve, Inc. Menlo Park, CA)
FACULTY TEAM
Penn Interventional Cardiology is comprised of a team of nationally recognized interventional cardiologists working in close collaboration with cardiac surgeons and cardiologists to perform catheter-based procedures for a variety of cardiovascular disorders.

Performing MitraClip Procedures at Penn Medicine
Howard C. Herrmann, MD
John W. Bryfogle Professor of Cardiovascular Medicine
Professor of Surgery in Medicine
Saif Anwaruddin, MD
Assistant Professor of Medicine
Gene Chang, MD
Assistant Professor of Clinical Medicine

MITRACLIP RESEARCH AT PENN
The Cardiovascular Outcomes Assessment of the MitraClip Percutaneous Therapy for Heart Failure Patients with Functional Mitral Regurgitation (COAPT) Trial is being performed at Penn Medicine to confirm the safety and effectiveness of the MitraClip System for the treatment of moderate-to-severe or severe functional (secondary) mitral regurgitation (FMR) in symptomatic heart failure subjects who are treated per standard of care and who have been determined by the site’s local heart team as not appropriate for mitral valve surgery. This randomized controlled trial will provide the opportunity to strengthen or add labeling claims regarding safety and clinical benefits of the MitraClip System for symptomatic heart failure patients with moderate-to-severe or severe functional mitral regurgitation.

For more information about this trial, contact Howard Herrmann, MD, at 215.662.2180.