What are the potential risks/complications of the procedure?

- Allergic reactions to medications/contrasts
- Arrhythmias (irregular heart beat)
- Atrial septal defect requiring treatment
- Bleeding and vascular injury
- Risks arising from transesophageal echocardiography
- Clip erosion, migration or malposition
- Clip detachment, partial/full
- Clip thrombosis (clot formation over the clip)
- Conversion to open heart surgery
- Pericardial effusion (fluid accumulation in the heart sac)
- Pericardial tamponade (bleeding outside the heart and causing compression)
- Stroke (from clot formation or air bubbles)
- Infection
- Mitral valve stenosis (narrowing)
- Myocardial infarction (heart attack)
- Prolonged ventilation

What needs to be observed after returning home?

1. Limit strenuous activities for about one month after the procedure.
2. If there is pain or bleeding around the groin site, please inform your doctor immediately.
3. Avoid dental procedures in the first six months after clip insertion. If dental procedures are required, antibiotics should be prescribed before the procedure.
Some investigations would need to be performed before the procedure. These include but are not limited to a transthoracic and transesophageal echocardiogram (ultrasound test for the heart). These two tests will allow for a more accurate assessment of the mitral valve to determine if MitraClip therapy is suitable. Other tests such as coronary angiograms, electrocardiograms, chest X-rays and blood tests may also be needed prior to the procedure.

The MitraClip therapy procedure is done under general anesthesia and takes approximately 3 to 4 hours.

A catheter (long thin flexible tube) is guided through the femoral (leg) vein to reach the heart.

The clip is delivered through the catheter to the region of the mitral valve. Upon reaching the mitral valve, it clips the mitral valve to allow it to close better.

The clip is left on the mitral valve while the rest of the delivery system and the catheter are removed.

Additional tests will be performed after the MitraClip therapy procedure. These include a repeat transthoracic echocardiogram, blood tests and a chest X-ray. You may also be given blood thinners such as aspirin and or clopidogrel for six months.

What can I expect before the procedure?

What happens after the procedure?

The mitral valve is located between the two chambers on the left side of the heart which directs blood flow in one direction - from the upper chamber (left atrium) to the lower chamber (left ventricle). When this valve does not close completely, mitral regurgitation (MR) or backflow of blood in the left ventricle occurs. In severe cases, reduced blood flow is pumped out of the heart. This creates excessive workload on the heart leading to dilation of the heart chambers. If left untreated, it can result in heart failure.

There are currently several options of treatment available for mitral valve regurgitation. These include medical treatment, surgery, or less invasive valve repair such as the MitraClip therapy.

Compared to open-heart surgery, MitraClip is a less-invasive repair method. A ‘clip’ (the MitraClip device) is attached to your valve to repair your mitral valve, allowing it to close more completely. This would enable normal blood flow through your heart to be restored.

What is Mitral Regurgitation?

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