Mitral Valve Surgery

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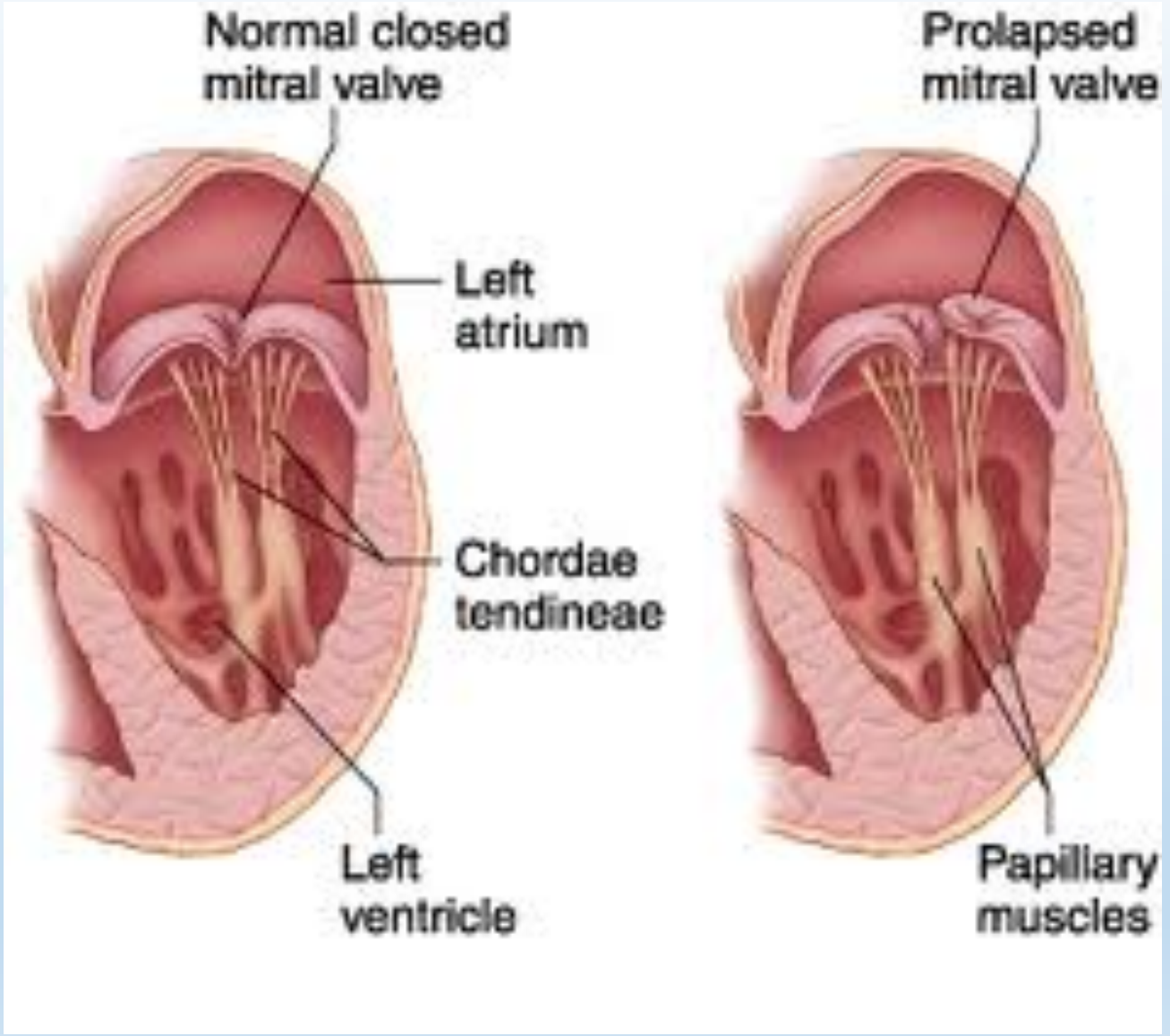
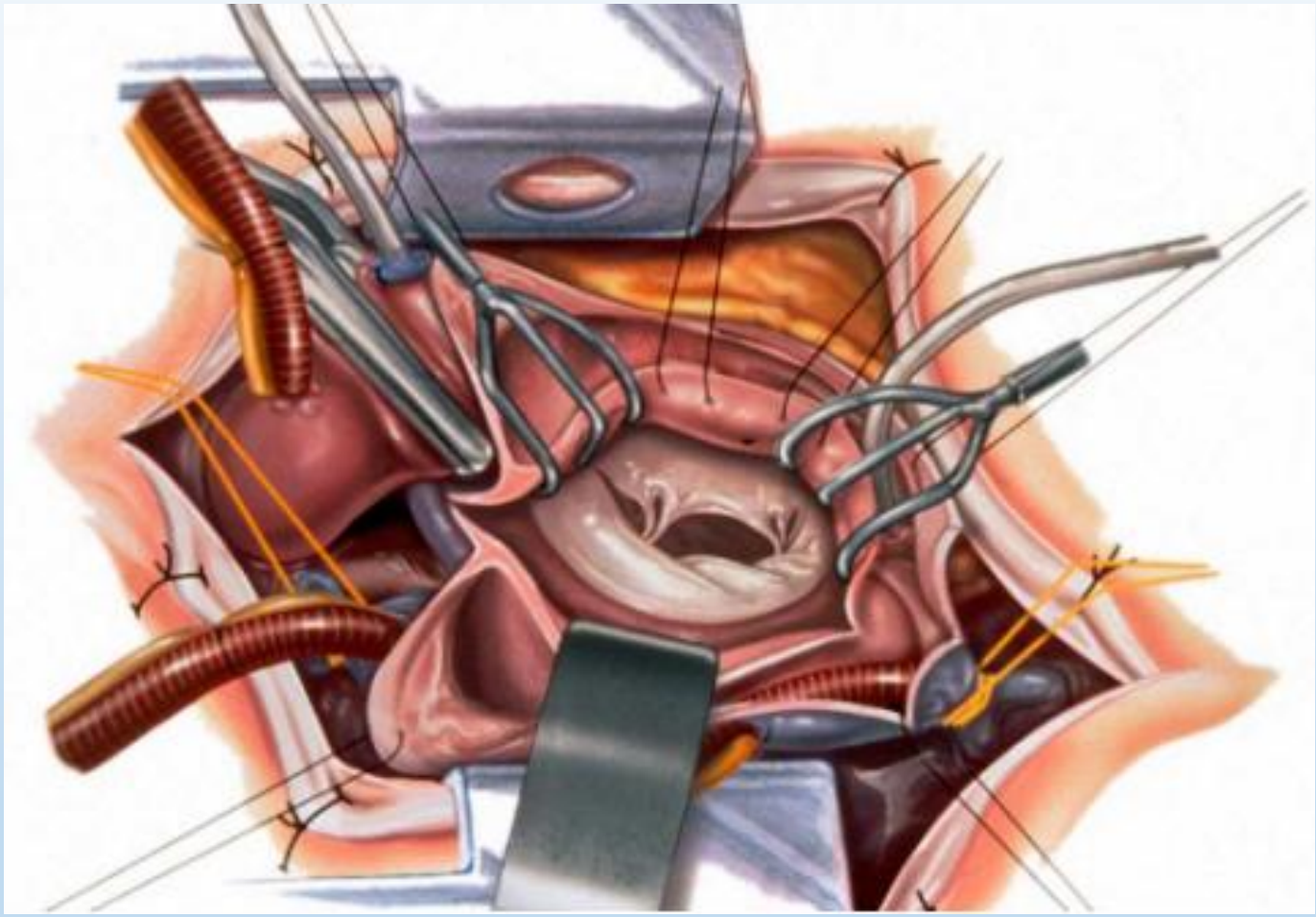
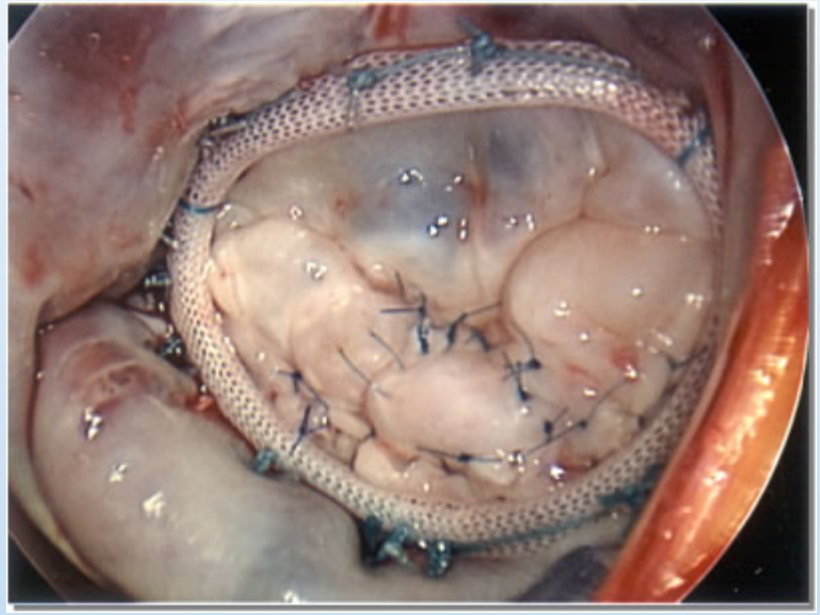

Normal closed mitral valve
Left atrium
Chordae tendineae
Left ventricle
Prolapsed mitral valve
Papillary muscles



Clinical Presentation

- Often asymptomatic initially
- Shortness of Breath/Exercise Intolerance
- Palpitations due to atrial arrhythmias



Options for Treatment

- Medical management of heart failure/arrhythmias
- Surgery

Indications for Surgical Treatment

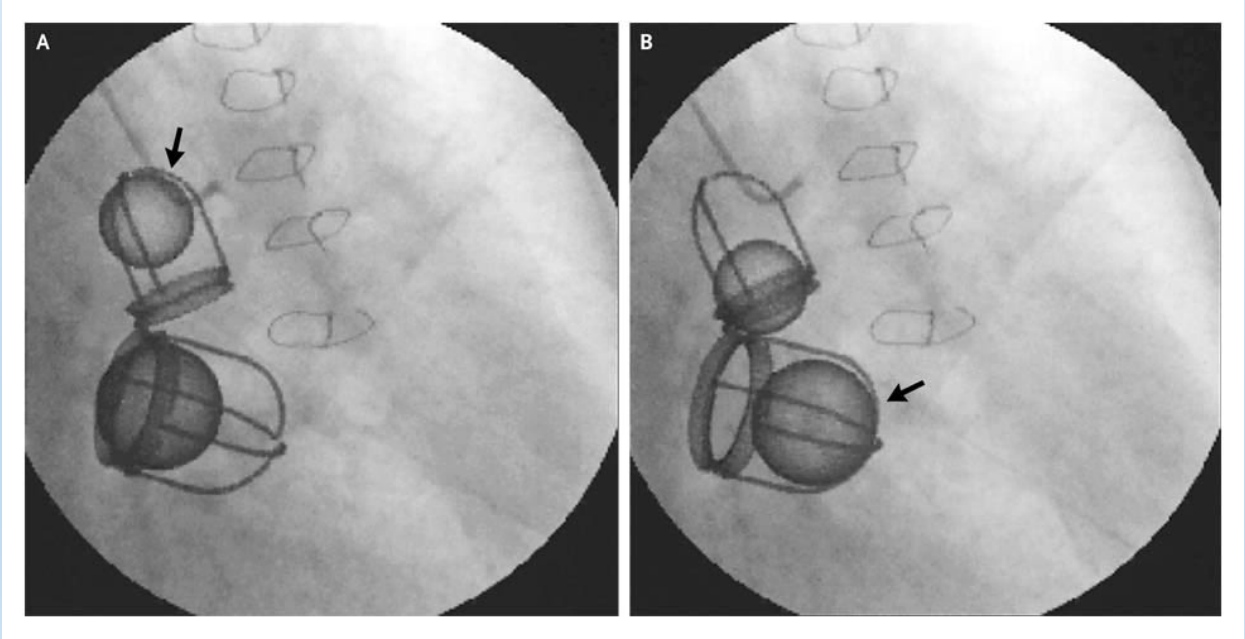
- Mitral valve surgery is recommended for symptomatic patients with chronic severe primary MR (stage D) and LVEF greater than 30% (Class I)
- Mitral valve surgery is recommended for asymptomatic patients with chronic severe primary MR and LV dysfunction (LVEF 30% to 60% and/or LVESD ≥40 mm (Class I)
- Concomitant mitral valve repair or MVR is indicated in patients with chronic severe primary MR undergoing cardiac surgery for other indications (Class I)

Indications for Surgical Treatment

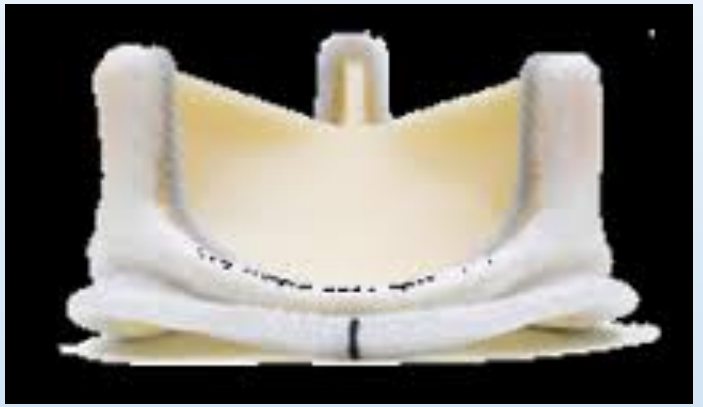
- Mitral valve repair is reasonable in asymptomatic patients with chronic severe primary MR (stage C1) with preserved LV function (LVEF >60% and LVESD <40 mm) in whom the likelihood of a successful and durable repair without residual MR is greater than 95% with an expected mortality rate of less than 1% when performed at a Heart Valve Center of Excellence (Class IIA)
- Mitral valve repair is reasonable for asymptomatic patients with chronic severe nonrheumatic primary MR (stage C1) and preserved LV function (LVEF >60% and LVESD <40 mm) in whom there is a high likelihood of a successful and durable repair with 1) new onset of AF or 2) resting pulmonary hypertension (pulmonary artery systolic arterial pressure >50 mm Hg (Class IIA)

Mitral Valve Replacement

- Mitral Valve Replacement
  - First performed in 1960s. Albert Starr, who also designed first successful valve prosthesis
  - Current options are either mechanical or tissue valves



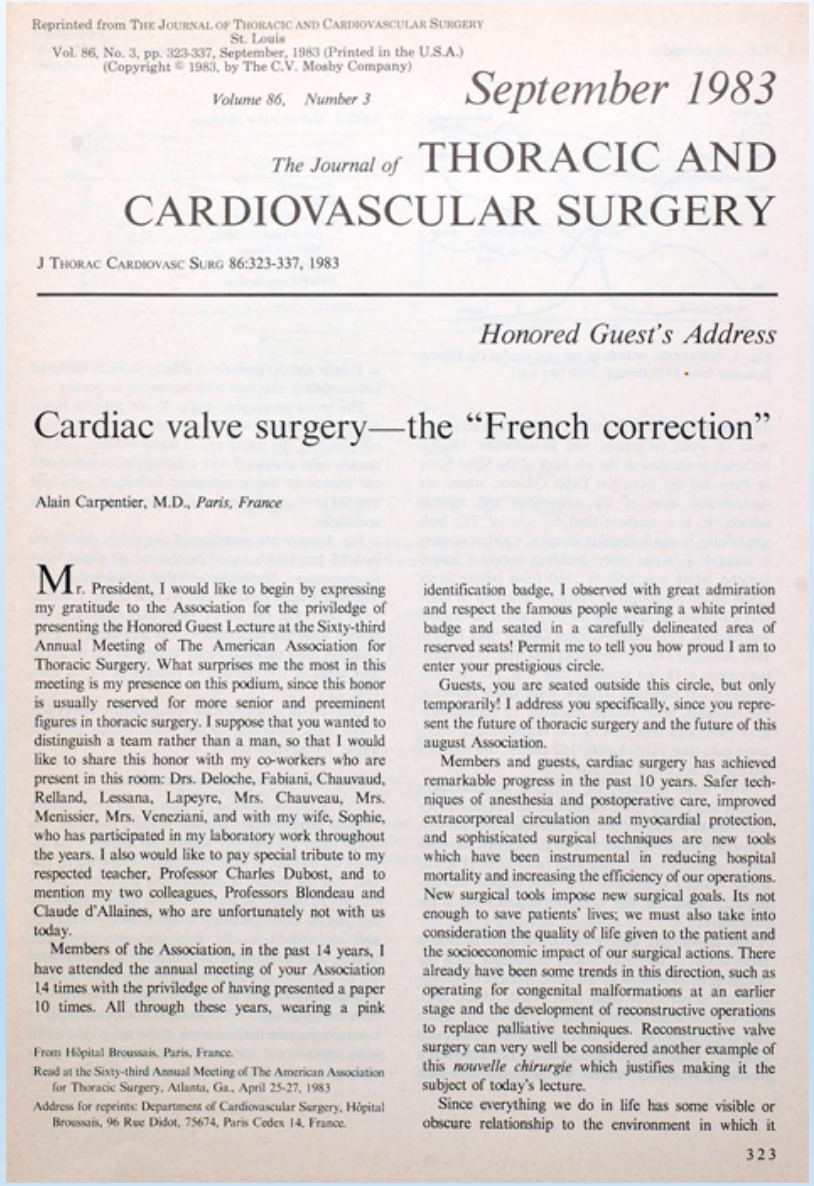
Modern Prosthetic Options



Mitral Valve Repair

- Pioneer in the field of Mitral Valve Repair
- Now, in almost all cases of primary mitral valve dysfunction leading to insufficiency repair is favored over replacement

Believed to maintain ventricular function better, less need for anticoagulation



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Honored Guest's Address

Cardiac valve surgery—the "French correction"

Alain Carpentier, M.D., *Paris, France*

Mr. President, I would like to begin by expressing my gratitude to the Association for the priviledge of presenting the Honored Guest Lecture at the Sixty-third Annual Meeting of The American Association for Thoracic Surgery. What surprises me the most in this meeting is my presence on this podium, since this honor is usually reserved for more senior and preeminent figures in thoracic surgery. I suppose that you wanted to distinguish a team rather than a man, so that I would like to share this honor with my co-workers who are present in this room: Drs. Deloche, Fabiani, Chauvaud, Relland, Lessana, Lapeyre, Mrs. Chauveau, Mrs. Menissier, Mrs. Veneziani, and with my wife, Sophie, who has participated in my laboratory work throughout the years. I also would like to pay special tribute to my respected teacher, Professor Charles Dubost, and to mention my two colleagues, Professors Blondeau and Claude d'Allaines, who are unfortunately not with us today.

Members of the Association, in the past 14 years, I have attended the annual meeting of your Association 14 times with the priviledge of having presented a paper 10 times. All through these years, wearing a pink identification badge, I observed with great admiration and respect the famous people wearing a white printed badge and seated in a carefully delineated area of reserved seats! Permit me to tell you how proud I am to enter your prestigious circle.

Guests, you are seated outside this circle, but only temporarily! I address you specifically, since you represent the future of thoracic surgery and the future of this august Association.

Members and guests, cardiac surgery has achieved remarkable progress in the past 10 years. Safer techniques of anesthesia and postoperative care, improved extracorporeal circulation and myocardial protection, and sophisticated surgical techniques are new tools which have been instrumental in reducing hospital mortality and increasing the efficiency of our operations. New surgical tools impose new surgical goals. Its not enough to save patients' lives; we must also take into consideration the quality of life given to the patient and the socioeconomic impact of our surgical actions. There already have been some trends in this direction, such as operating for congenital malformations at an earlier stage and the development of reconstructive operations to replace palliative techniques. Reconstructive valve surgery can very well be considered another example of this *nouvelle chirurgie* which justifies making it the subject of today's lecture.

Since everything we do in life has some visible or obscure relationship to the environment in which it

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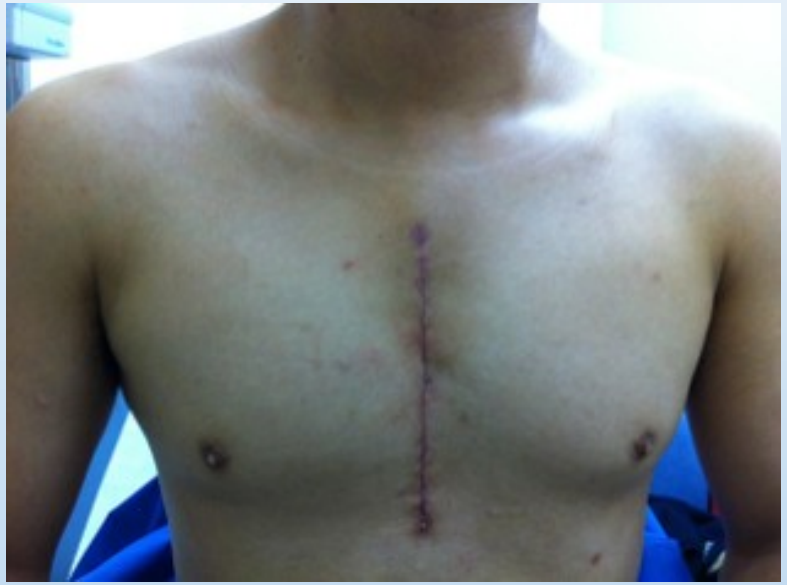
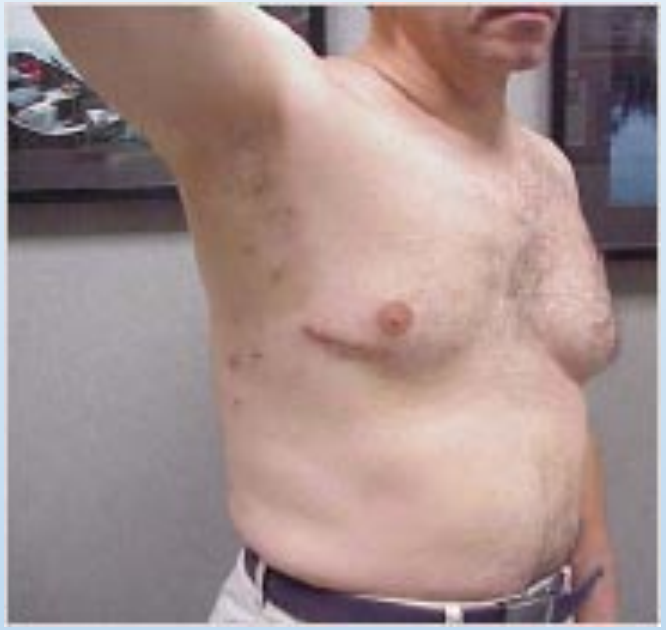
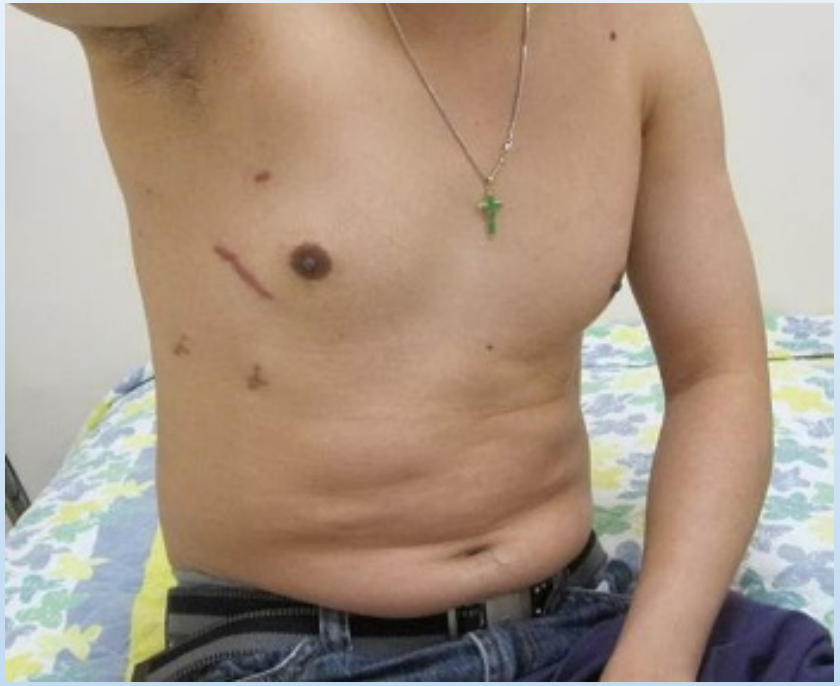
Less Invasive Options







Women and Mitral Valve Surgery

Mitral Valve Prolapse affects 6% of all women, but women are less likely to require surgery for mitral disease

Women are more often affected with Mitral Stenosis, and women account for 70% of all cases of MS.

In isolated valve surgery, mortality for women is higher than men. Unclear why this is so.

Conclusions

- Mitral Valve Surgery is an effective therapeutic option for patients with severe mitral leakage or stenosis, particularly when symtoms occur
- Women are more frequently affected by mitral stenosis for unclear reasons
- Women tend to do worse than men when undergoing isolated valve surgery (23% higher chance of death)