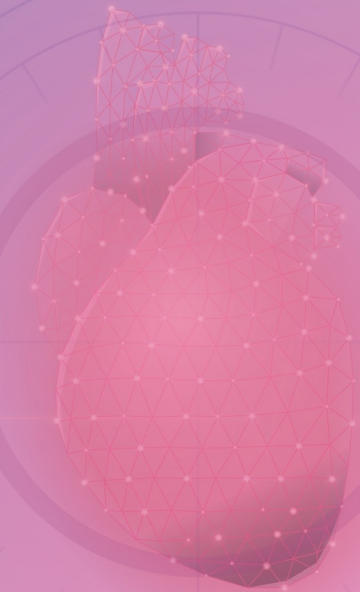




The Development of Mitral Valve Repair at Hanoi Heart Hospital

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Volume 86, Number 3

September 1983

The Journal of **THORACIC AND
CARDIOVASCULAR SURGERY**

J THORAC CARDIOVASC SURG 86:323-337, 1983

Honored Guest's Address

Cardiac valve surgery—the “French correction”

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

Mục đích nghiên cứu

SUMMARY

STUDY ON HEMODYNAMIC CHANGING, LEFT VENTRICLE MORPHOLOGY AND FUNCTION POST-OP MITRAL VALVE PROLAPSE AT HANOI HEART HOSPITAL

Mitral valve prolapse is the most common cause of mitral valve regurgitation. Surgery is effectiveness for the treatment. However, due to left ventricle were damaged pre-op, there would be some risk of hemodynamic unstable and left ventricle failure post-op. **Purpose:** to evaluate the hemodynamic changing and left ventricle function post-op mitral valve prolapse. **Objective:** moderate to severe mitral valve prolapse, indicated to operation at Hanoi heart hospital. **Methods:** perspective, descriptive. **Results:** from 1/2007-6/2011: 114patients were included. Age average: $41,63 \pm 16,70$, mitral valve repair 69, valve replacement 45. Some hemodynamic changing: hypotension, heart failure: 4-8h post-op, inotrope time: $5,3 \pm 4,3$ h post-op valve repair and $8,7 \pm 3,22$ h valve replacement. Left ventricle dilated and function reduced (EF: $51,61 \pm 10,24$ postop repair and $49,22 \pm 11,46$ postop valve replacement) then early recover in the group valve repair. **Conclusion:** There were some early hemodynamic changing post-op mitral valve prolapse. Left ventricle dilated and function well recoverd in the group of mitral valve repair.

L. D. H. H. H.

A near 100% repair rate for mitral valve prolapse is achievable in a reference center: Implications for future guidelines

Javier G. Castillo, MD, Anelechi C. Anyanwu, MD, Valentin Fuster, MD, PhD, and David H. Adams, MD

TABLE 3. Operative details

Procedures	
Mitral valve repair	743 (99.9%)
Mitral valve replacement	1 (0.1%)
Concomitant procedures (no.)	
AF ablation therapy	146 (19.6%)
Tricuspid repair	465 (62.5%)
Aortic valve surgery	22 (3.0%)
CABG	80 (10.8%)
CPB time (min, IQR)	181 (147–230)
Aortic crossclamp time (min, IQR)	144 (118–191)

AF, Atrial fibrillation; CABG, coronary artery bypass grafting; CPB, cardiopulmonary bypass; IQR, interquartile range.

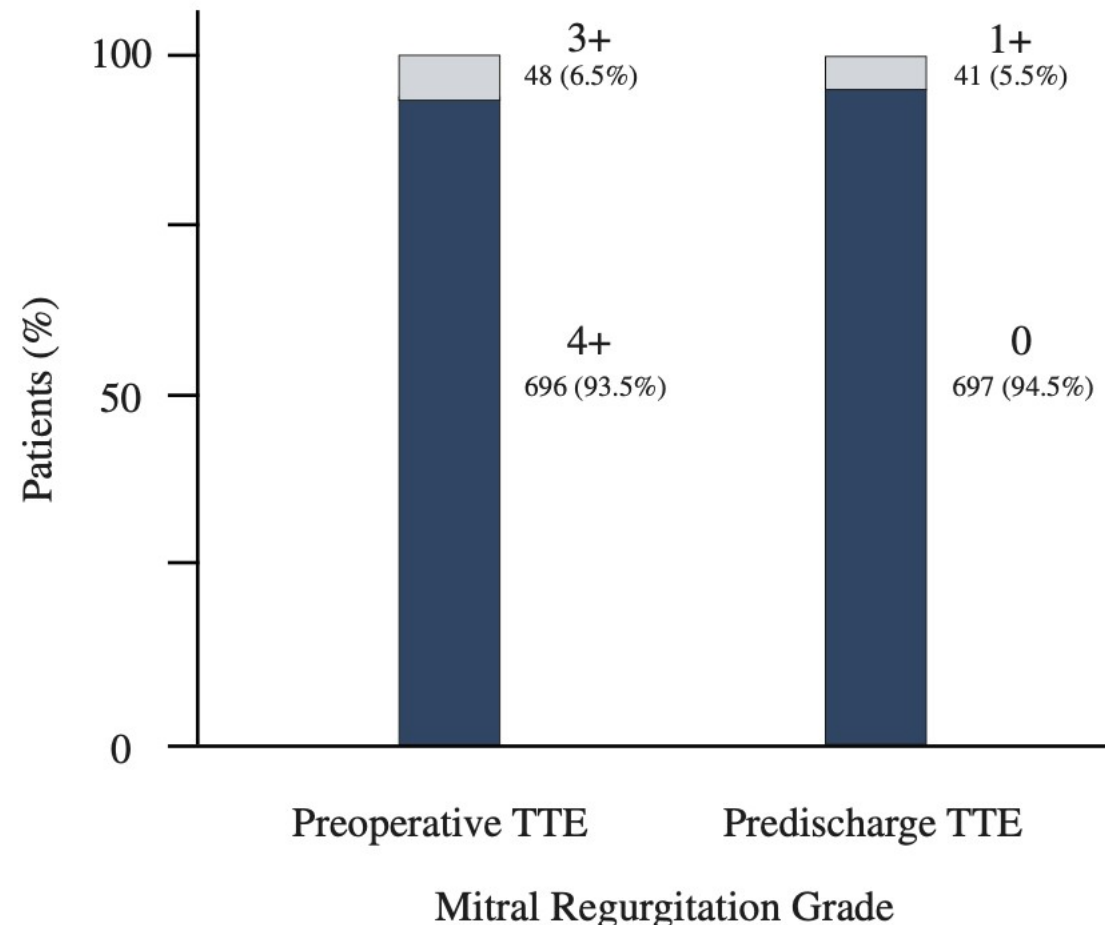


FIGURE 1. Perioperative transthoracic echocardiographic (TTE) assessment. 0, No mitral regurgitation (MR); 1+, mild MR; 2+, moderate MR;

Long-term outcomes of chordal replacement with ePTFE sutures to repair mitral leaflet prolapse

1985-2010: 746 patients (mean age 58 years; male gender 69%) had MV repair for leaflet prolapse (63% bileaflet; 32% advanced myxomatous degeneration) and were followed for median of 11 years. The number of artificial chords per valve increased over time.

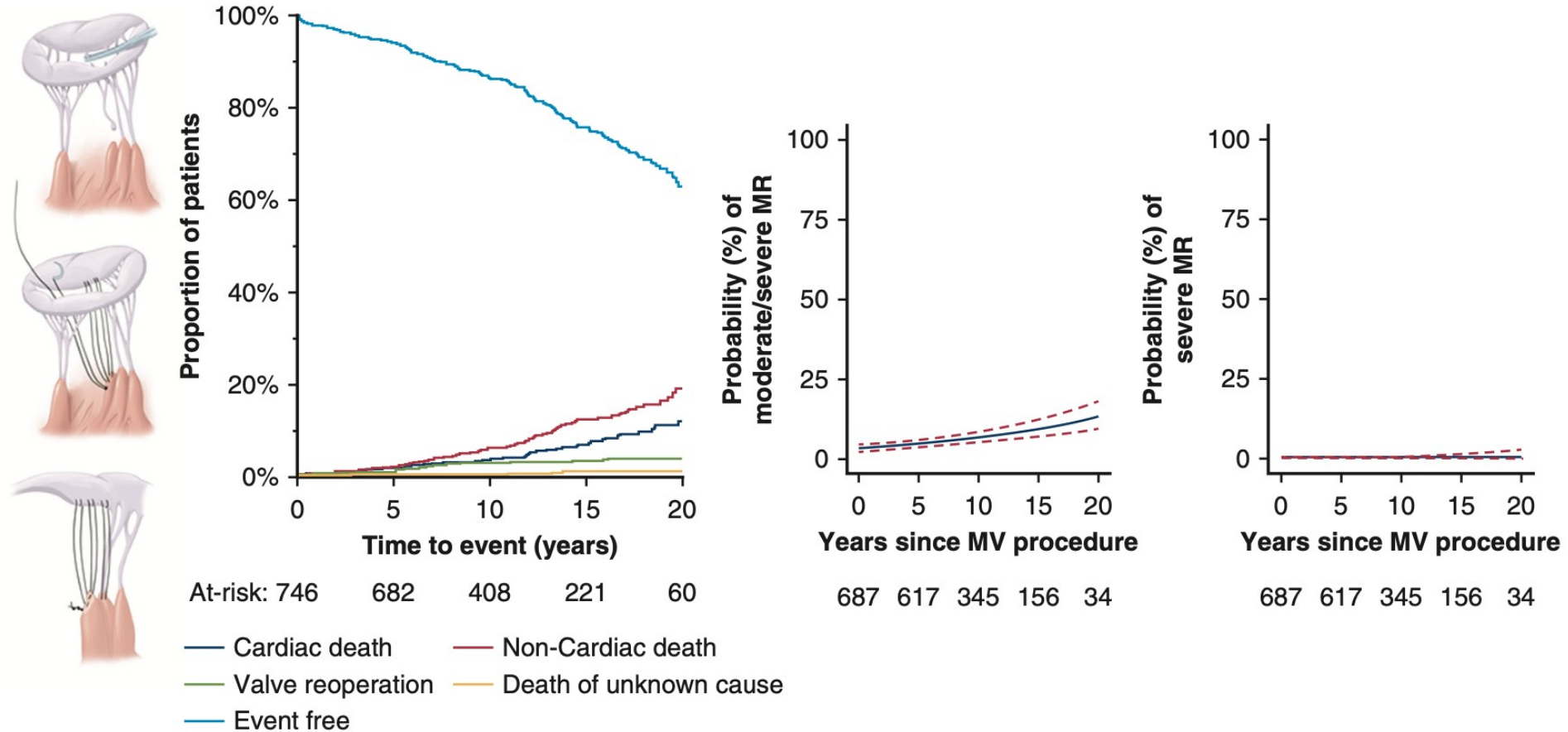


FIGURE 5. Between 1985 and 2010, 746 patients underwent mitral valve (MV) repair with expanded polytetrafluoroethylene sutures to correct leaflet prolapse. The survival was excellent and at 20 years, 13.1% (95% confidence interval, 9.3%-18.2%) had moderate or severe recurrent mitral regurgitation (MR).

EDITORIAL COMMENT

The Time Has Come to Define Centers of Excellence in Mitral Valve Repair*

Robert O. Bonow, MD, MS,^a David H. Adams, MD^b





How can we come close to the number of
Mitral valve repair experts in the world ?

Answer: Specialize Mitral Valve Repair.

The Patients

The degenerative Mitral valve surgery at Hanoi Hospital from January 2020 to August 2023.

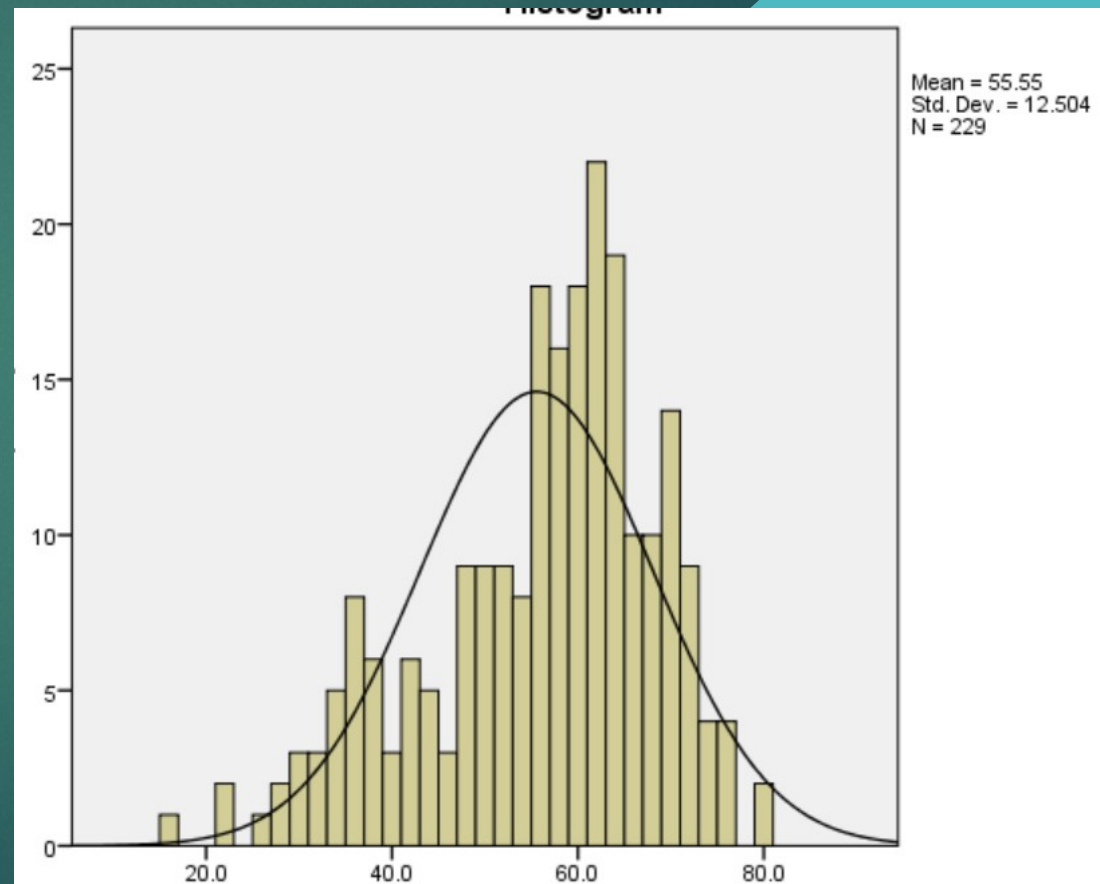
Patients not in Our Study

Rheumatic Mitral valve diseases

Secondary Mitral Valve Regurgitation

Ischemic Mitral Valve Regurgitation

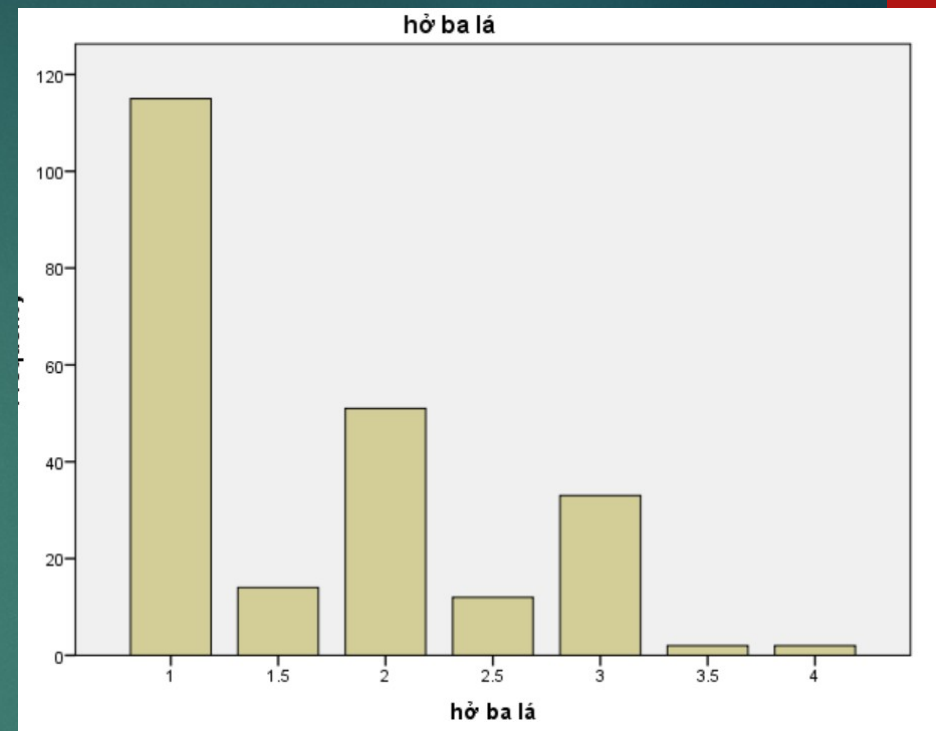
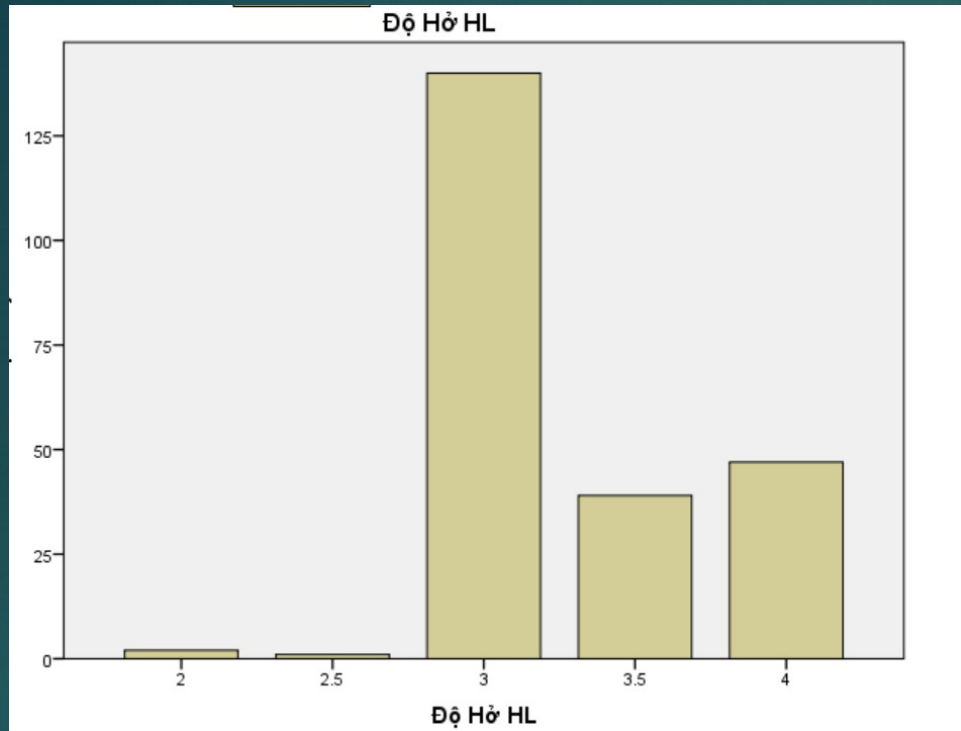
229 patients



Clinical Signs



Echo Before Surgery (n=229)



The severity of Mitral and Tricuspid Regurgitation

47 patients (20%) with MR 4/4

37 patients (16.1%) with TR 3/4 and 4/4

The Incisions



Cardioplegia



Mitral valve lesions



Mitral valve lesions



Operative data



Comparison between Hanoi Heart Hospital and Meta-Analysis Study for Open Surgery

Comparison between Hanoi Heart Hospital and Meta-Analysis Study for Less Invasive Surgery

Deaths and Complications



Comparison Echo Data Before and After Surgery



Tricuspid repair



Mitral Valve Ring Size



Mitral Valve Repair Techniques



Mitral Valve Repair Techniques



Mitral Valve Repair Techniques



Mitral Valve Repair Techniques



Number of GoreTex sutures



Mitral Valve Repair Result



Mitral valve repair rate



Cause of Failure



Cause of Failure

Neochord too long, unequal length.

Resect too much Tissue caused widen the Scallop, or Type III Posterior

No Ring, Band or not right size Ring

Edge to Edge suture in small valve (and or resected posterior leaflet) caused Mid to Moderate stenosis.

Endocarditis caused rupture of the patch or valve tissue.

Changing


Calculate the right length of GoreTex suture in the Systolic phase

Always use the ring (right size)

Limit the Edge to Edge Rescue Techniques.

Choose the right technique Posterior Resection and Neochord.

The most important is Specilising Mitral valve repair surgeon

A 3D-rendered white envelope is shown at an angle, standing upright. The front flap is folded down, and the words "Thank You" are written in a vibrant blue, cursive script across the center. The envelope has a subtle double-line border. A soft shadow is cast to the left and slightly forward. In the top right corner of the image, there is a solid red rectangular block.

Thank You