



TURIN, 20TH—21ST NOVEMBER 2008

GREAT INNOVATIONS IN CARDIOLOGY

4TH JOINT MEETING WITH MAYO CLINIC

4TH TURIN CARDIOVASCULAR NURSING CONVENTION



SESSION VI: HOT TOPICS
NEW TREATMENTS FOR AORTIC VALVE DISEASES

S. Marra (Torino)

Introduction: mitral and aortic valves diseases



GREAT INNOVATIONS IN CARDIOLOGY

Introduction:

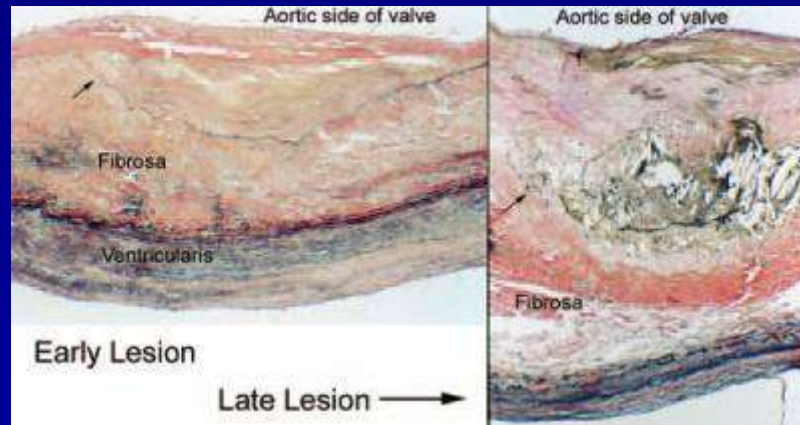
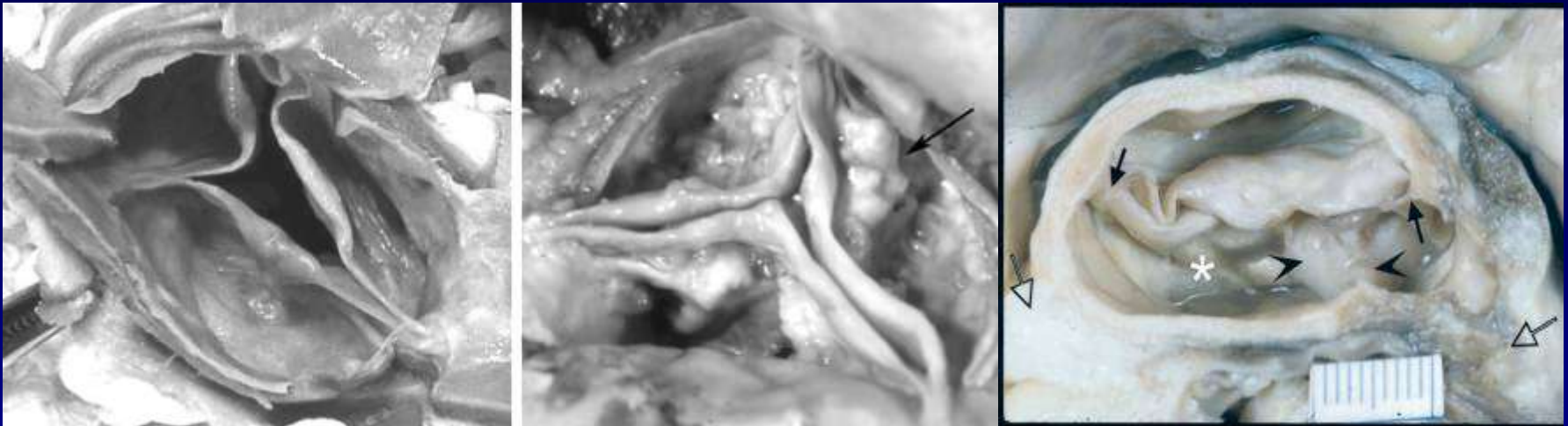
MITRAL AND AORTIC DISEASES

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A.O.U. S.Giovanni Battista, Molinette di Torino*

Spectrum of Calcific Aortic Valve Disease Pathogenesis, Disease Progression, and Treatment Strategies

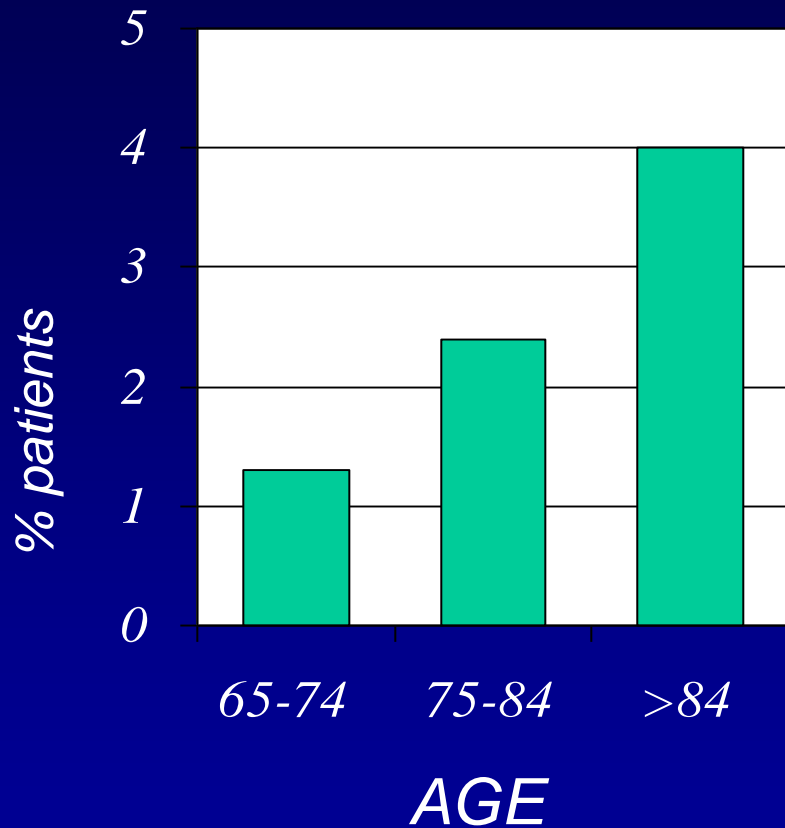
Rosario V. Freeman, MD, MS; Catherine M. Otto, MD



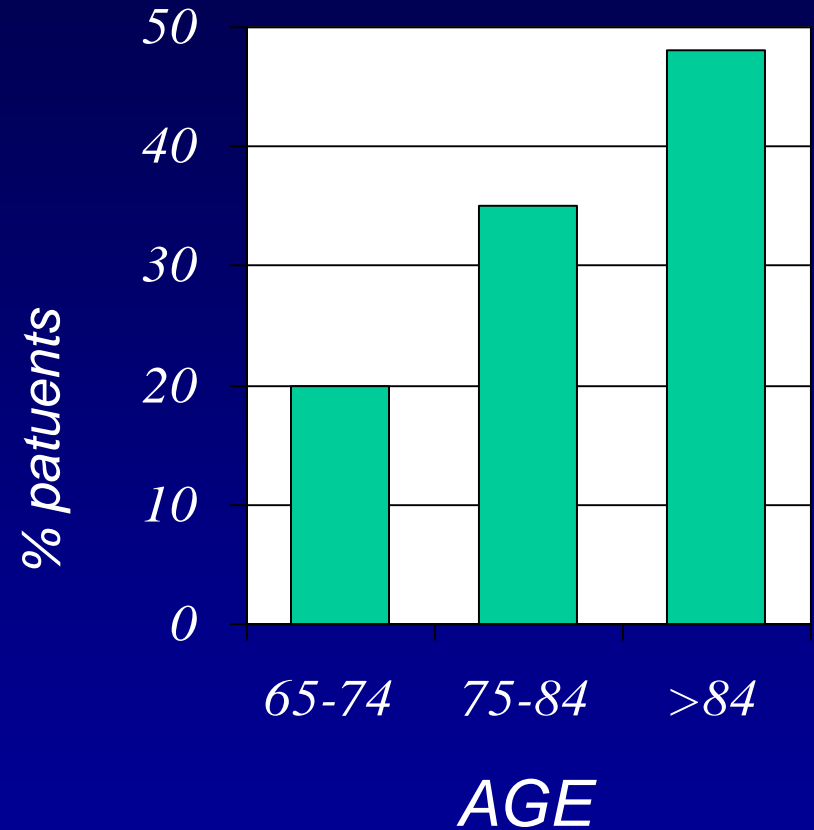
Circulation. 2005;111:3316



Aortic stenosis prevalence by age

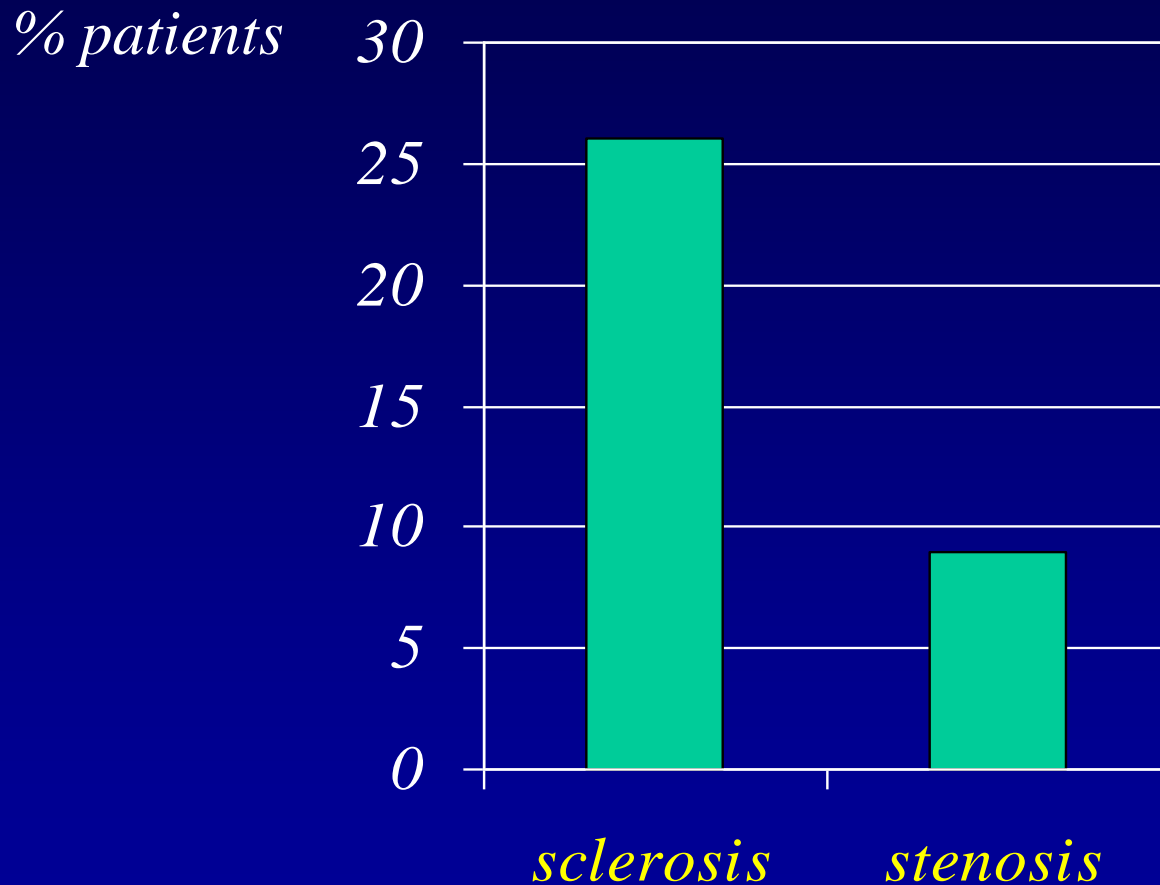


Echocardiographic evaluation of aortic calcifications by age



Stewart, JACC 1997

Aortic stenosis prevalence in elderly patients (65+)



Stewart, JACC 1997; Lindroos, JACC 1993



Helsinki Aging Study

Aortic stenosis prevalence: Echocardiographic data

501 pt
age 75-86 y

- 40% Mild calcifications
- 13% Severe calcifications
- 5% Moderate valvular stenosis
- 2.9% Severe valvular stenosis

Lindroos M et al. JACC (1993); 21:1220-5

The Euro Heart Survey on Valvular Heart disease

Aortic stenosis etiology

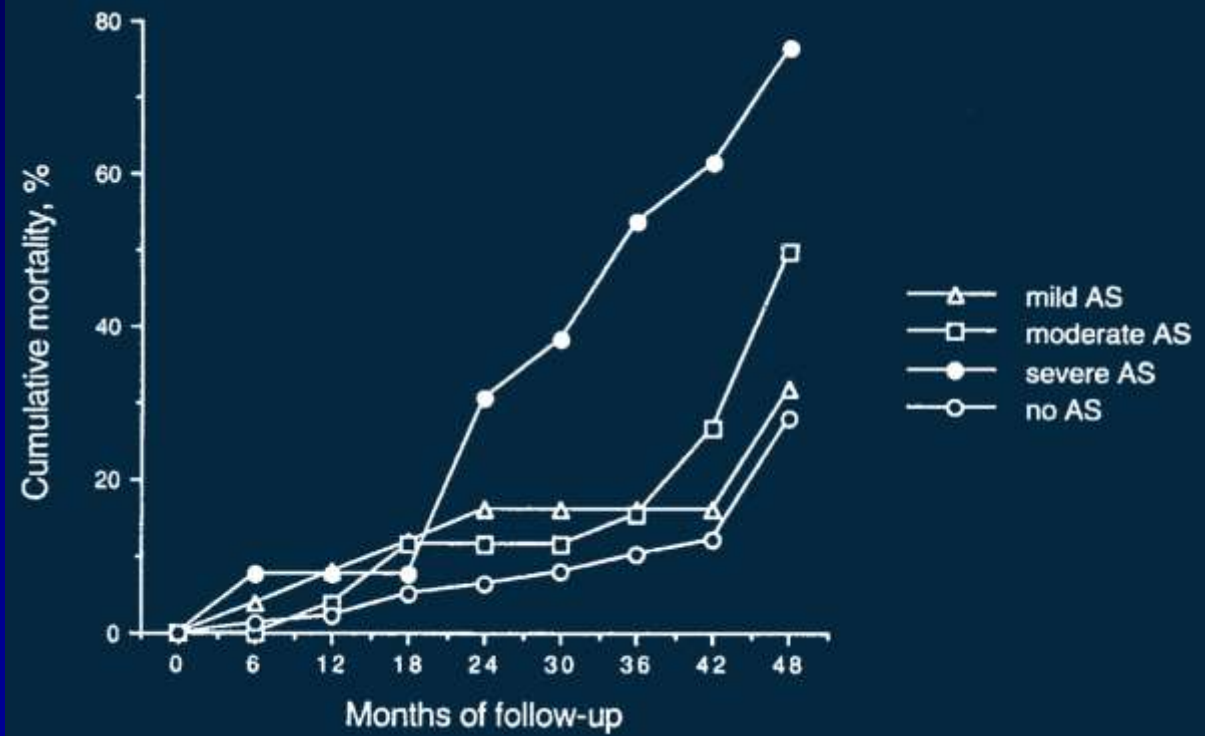
Aortic stenosis n=1197	
Degenerative (%)	81.9
Rheumatic (%)	11.2
Endocarditis (%)	0.8
Inflammatory (%)	0.1
Congenital (%)	5.4
Ischaemic (%)	0
Other (%)	0.6



Iung B, EHJ (2003); 24:1231-1243

Natural history of aortic stenosis in elderly patients

- 476 patients
- 75-86 y.o.
- 412 no AS (2.1 cm²)
- 25 mild AS (1.2 cm²)
- 26 moderate (0.9 cm²)
- 13 severe AS (0.6 cm²)
- 4-year follow-up



OUTCOME OF ASYMPTOMATIC PATIENTS WITH AORTIC STENOSIS

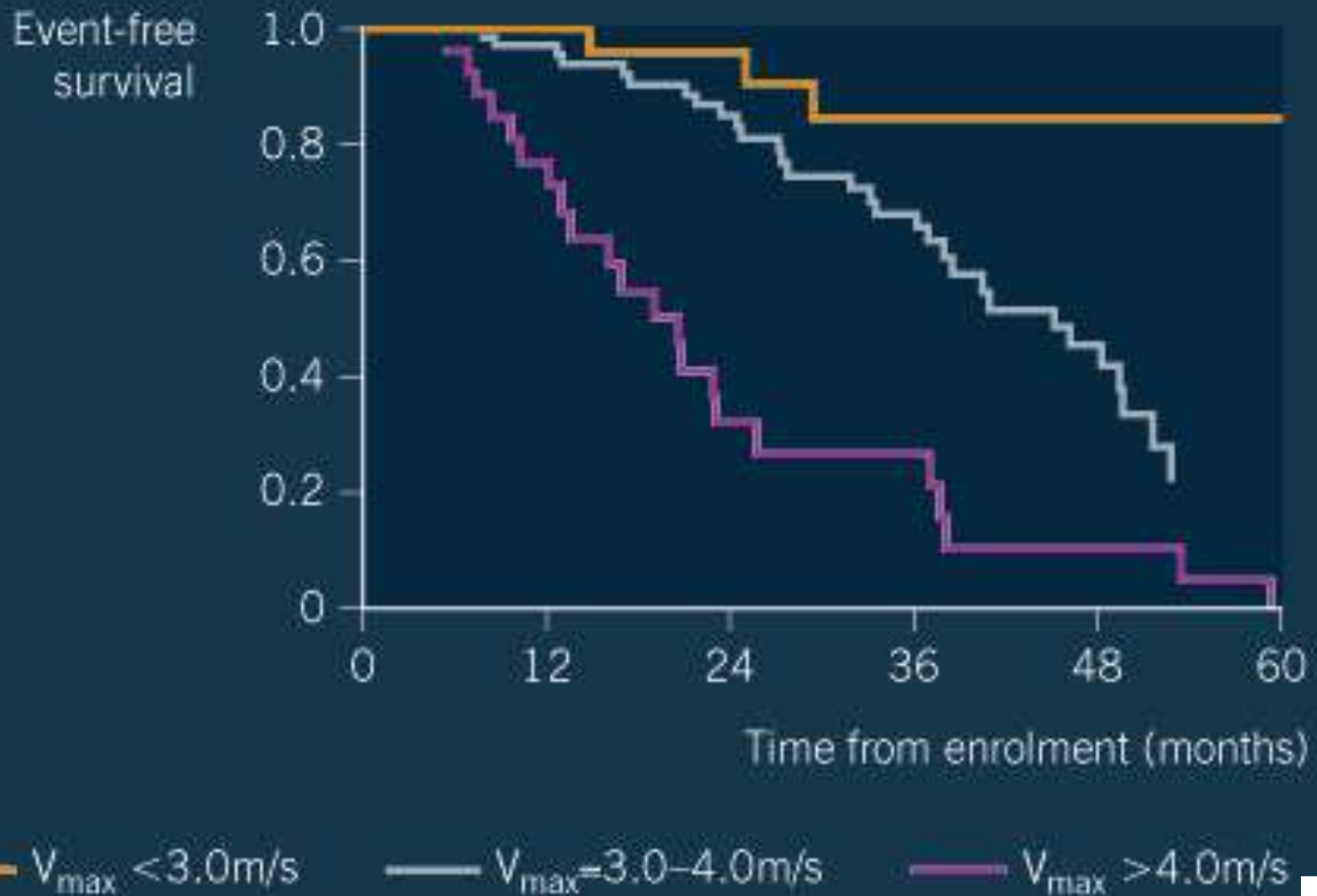


Table 8 Operative mortality and morbidity of interventions according to the underlying valve disease

	Aortic stenosis <i>n</i> =512	Aortic regurgitation <i>n</i> =119	Mitral stenosis <i>n</i> =112	Mitral regurgitation <i>n</i> =155	Multiple valve disease <i>n</i> =185	Previous conservative intervention <i>n</i> =47	Previous prosthetic replacement <i>n</i> =117
Mortality (%)	3.1	3.4	0.9	3.9	6.5	2.1	6.2
Major Bleeding (%)	7.7	2.5	2.7	7.7	10.8	4.3	12.0
Tamponade (%)	2.9	1.7	0.9	2.6	4.3	0	1.7
Embolism ^a (%)	3.1	2.5	2.7	7.1	2.2	2.1	3.4
Prosthetic thrombosis ^b (%)	0.2	0	0.9	0.6	0	0	0
Myocardial infarction (%)	1.0	0	0	0.6	0.5	0	1.7
Mediastinitis (%)	0.6	0.8	0	1.3	2.2	0	0

The 16 patients operated on for right-sided valve disease are not detailed. Major bleeding is defined by bleeding leading to death, surgery, or transfusion.

^aincluding transient ischaemic attacks.

^bocclusive or non-occlusive thrombosis.

ACC/AHA Practice Guidelines

ACC/AHA 2006 Guidelines for the Management of Patients With Valvular Heart Disease: Executive Summary

A Report of the American College of Cardiology/American Heart
Association Task Force on Practice Guidelines (Writing Committee to
Revise the 1998 Guidelines for the Management of Patients With Valvular
Heart Disease)

Medical Therapy for the Inoperable Patient

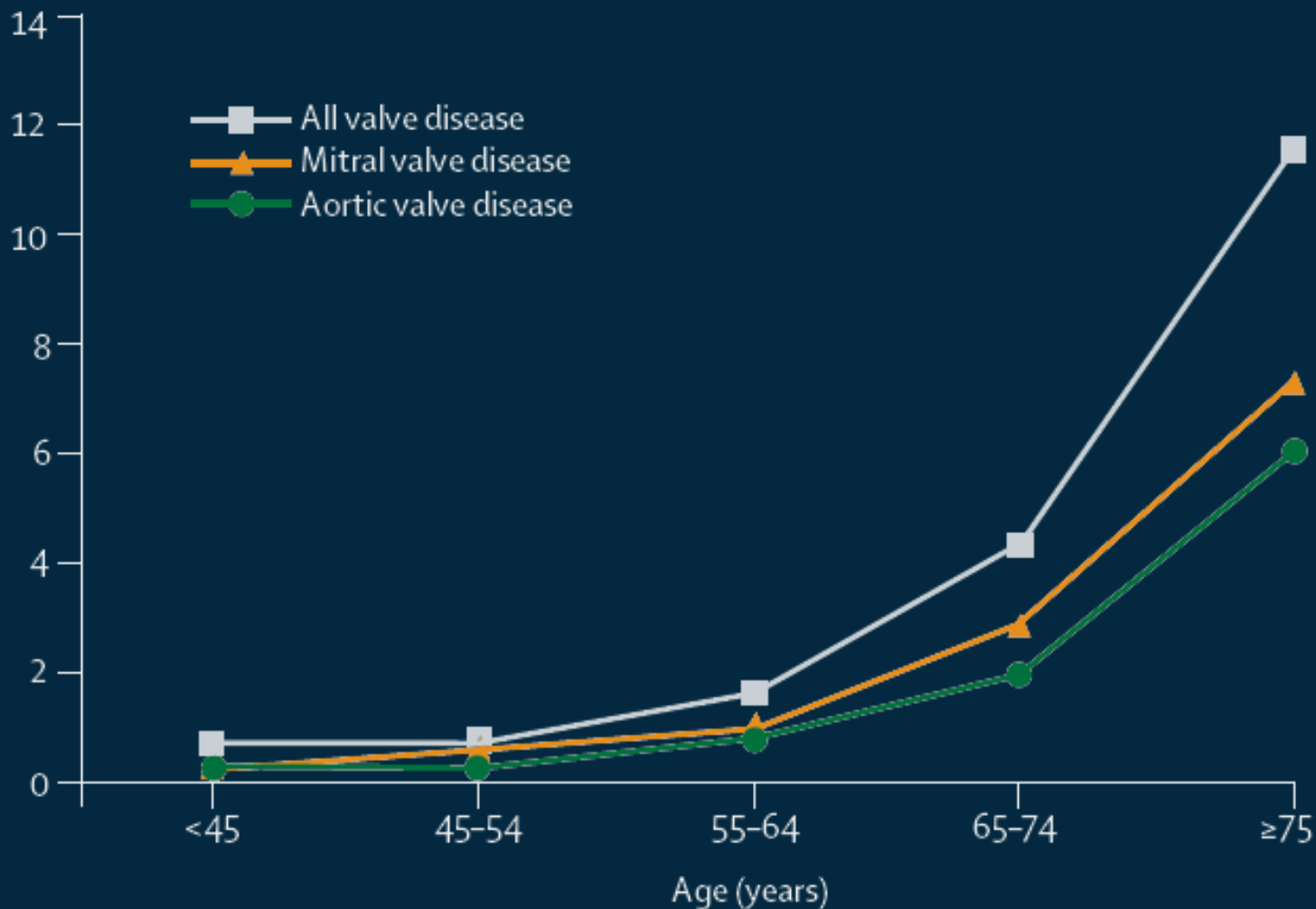
Comorbid conditions (e.g., malignancy) or, on occasion, patient preferences might preclude AVR for severe AS.

Under such circumstances, there is no therapy that prolongs life, and only limited medical therapies are available to alleviate symptoms.

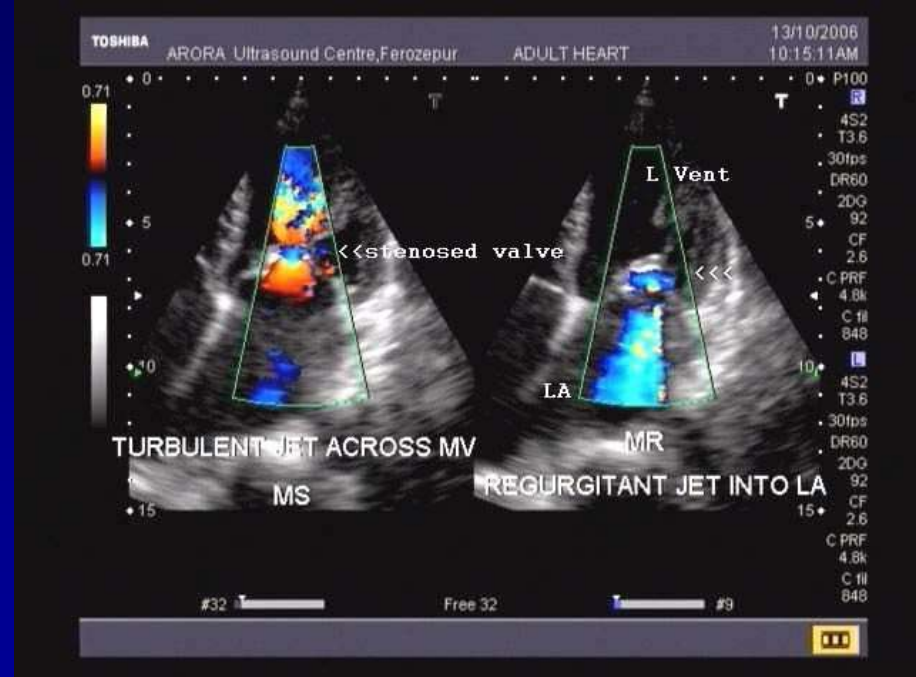
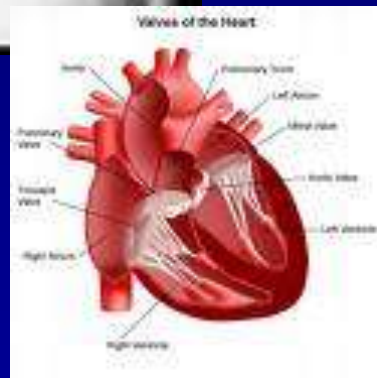


The National Heart, Lung and Blood Institute (NHLBI)

Prevalence of valvular heart disease by age



Mitral regurgitation



The second most frequent valvular heart disease in industrialized countries

The Euro Heart Survey on Valvular Heart disease

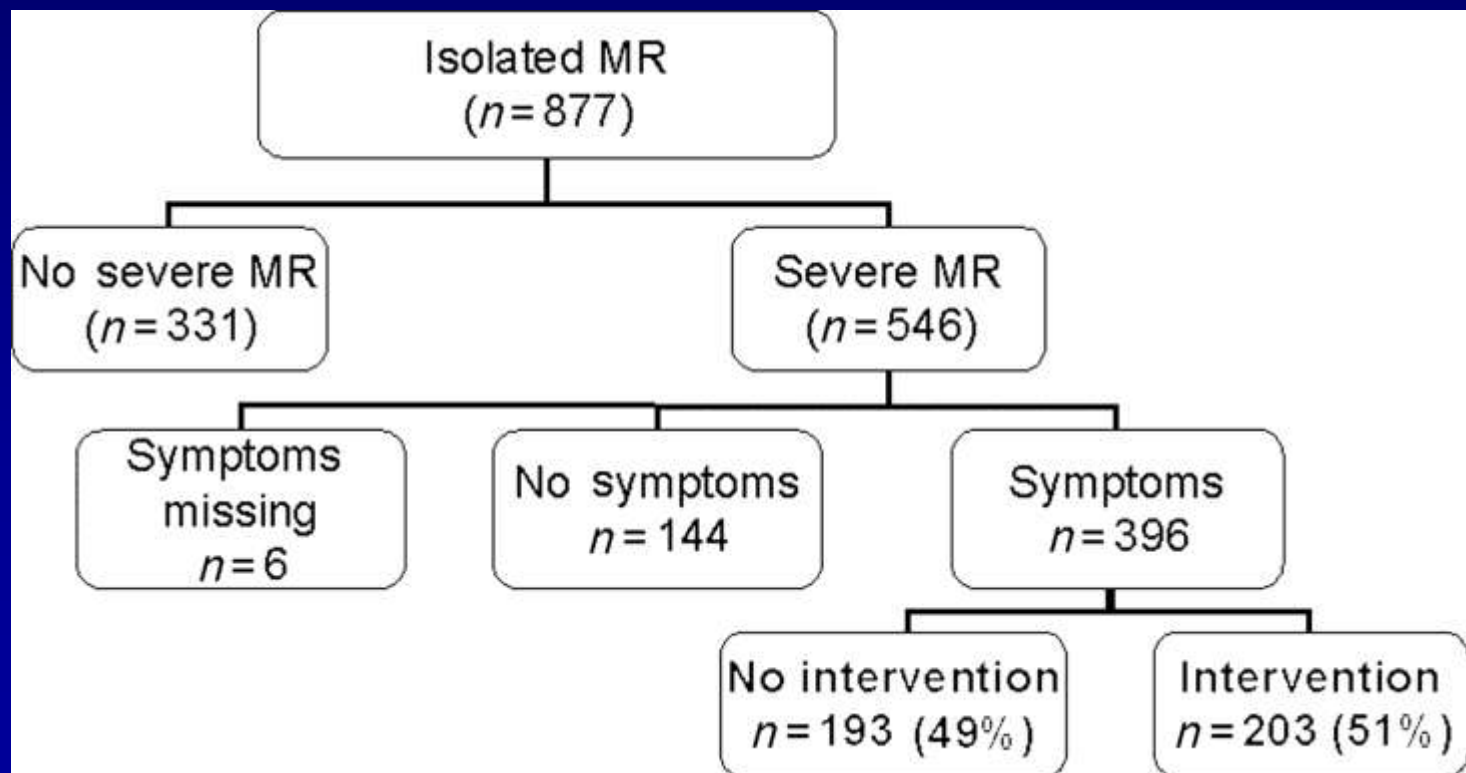
Table 3 Etiology of single native left-sided valve disease

	Aortic stenosis n=1197	Aortic regurgitation n=369	Mitral stenosis n=336	Mitral regurgitation n=877
Degenerative (%)	81.9	50.3	12.5	61.3
Rheumatic (%)	11.2	15.2	85.4	14.2
Endocarditis (%)	0.8	7.5	0.6	3.5
Inflammatory (%)	0.1	4.1	0	0.8
Congenital (%)	5.4	15.2	0.6	4.8
Ischaemic (%)	0	0	0	7.3
Other (%)	0.6	7.7	0.9	8.1

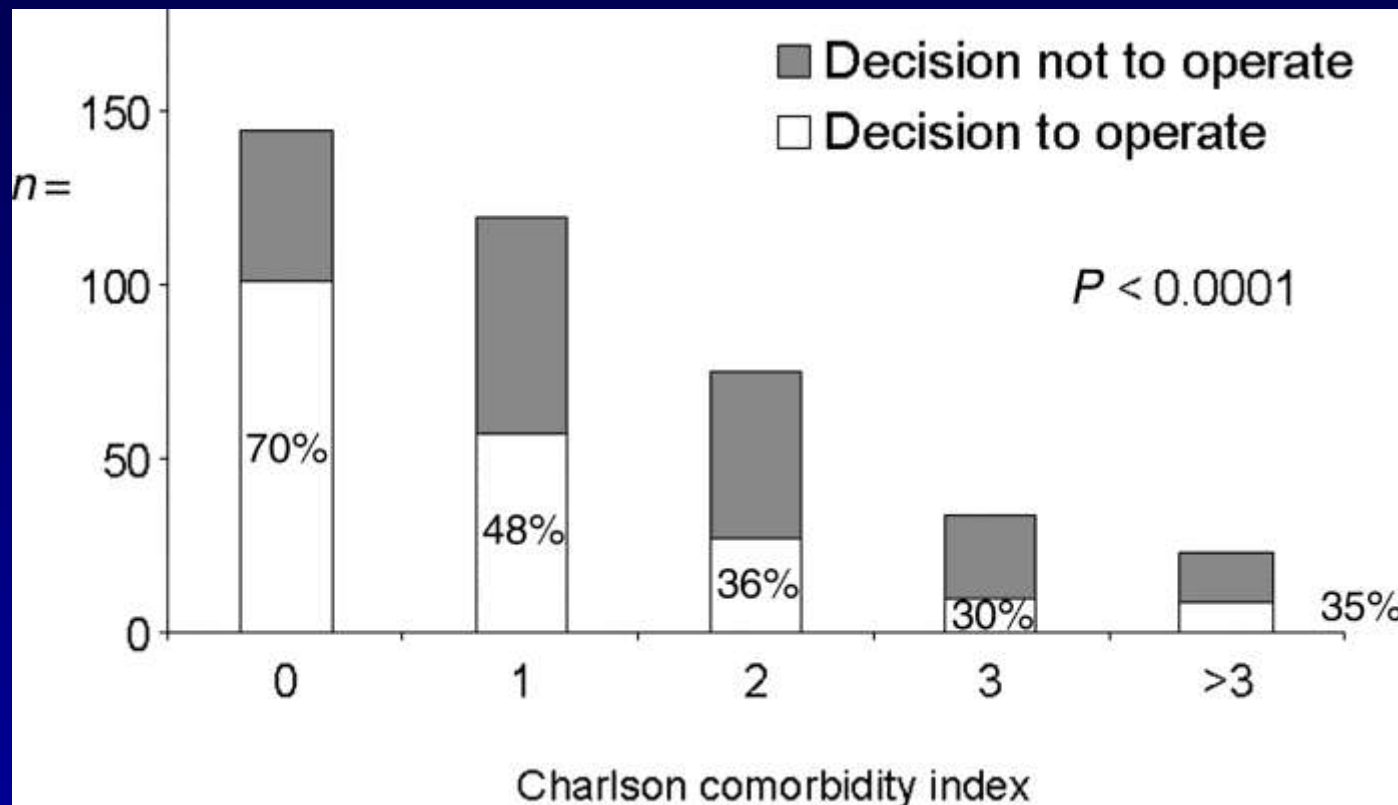
Iung B, EHJ (2003); 24:1231-1243

What are the characteristics of patients with severe, symptomatic, mitral regurgitation who are denied surgery?

Mariana Mirabel¹, Bernard Lung^{1*}, Gabriel Baron², David Messika-Zeitoun¹, Delphine Détaint¹, Jean-Louis Vanoverschelde³, Eric G. Butchart⁴, Philippe Ravaud², and Alec Vahanian¹

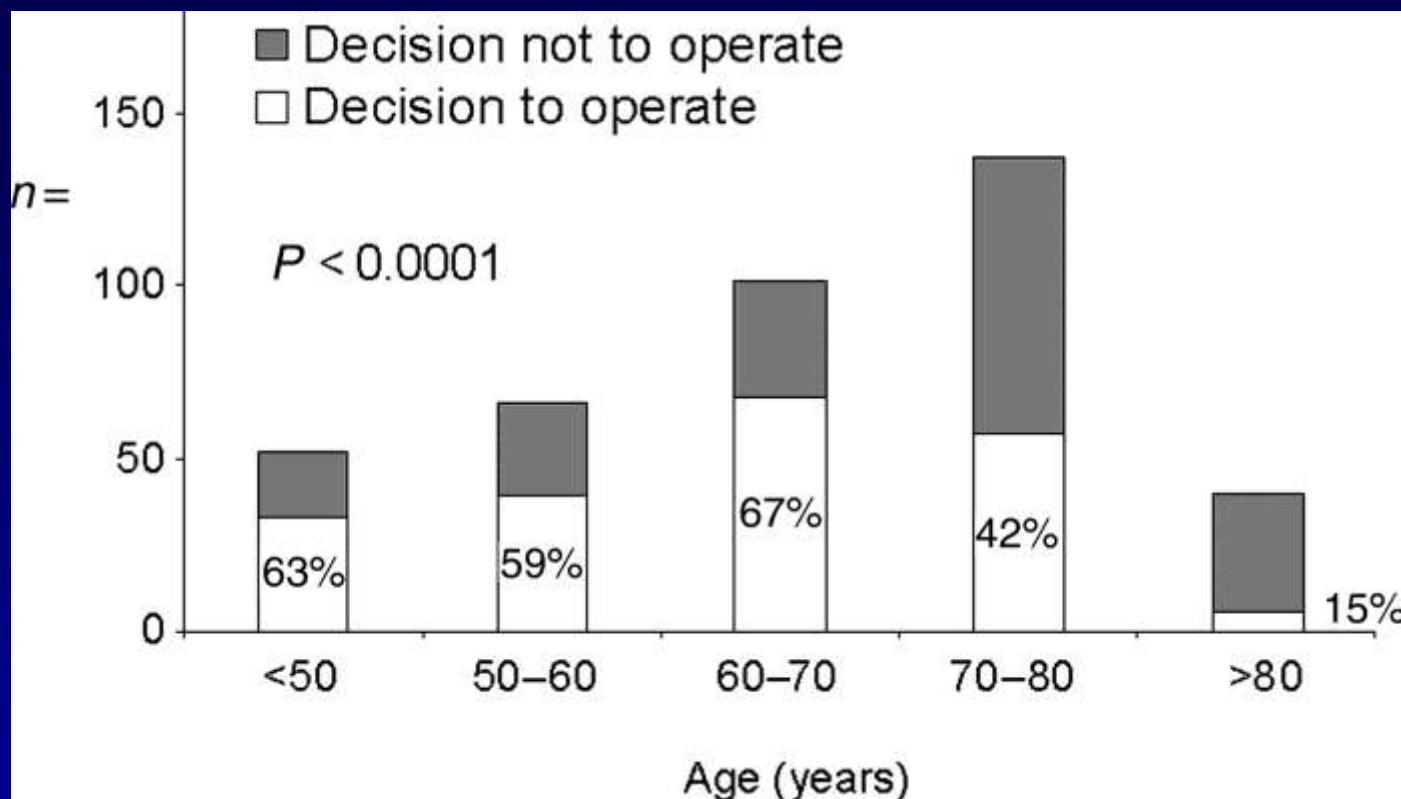


Decision to operate according to the Charlson comorbidity index



Mirabel, M. et al. Eur Heart J 2007 28:1358-1365

Decision to operate according to age range



Mirabel, M. et al. Eur Heart J 2007 28:1358-1365

Thanks for your kind
attention

