



**4th International MESPE Congress
Malaga, Spain, 22-24 September 2005**

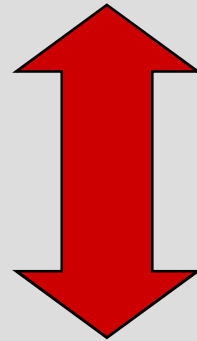
Atrial Fibrillation Ablate and Pace: Last resource ?

**Athanasios G. Manolis FESC
Hellenic Red Cross Hospital of Athens.**



Medical axioma

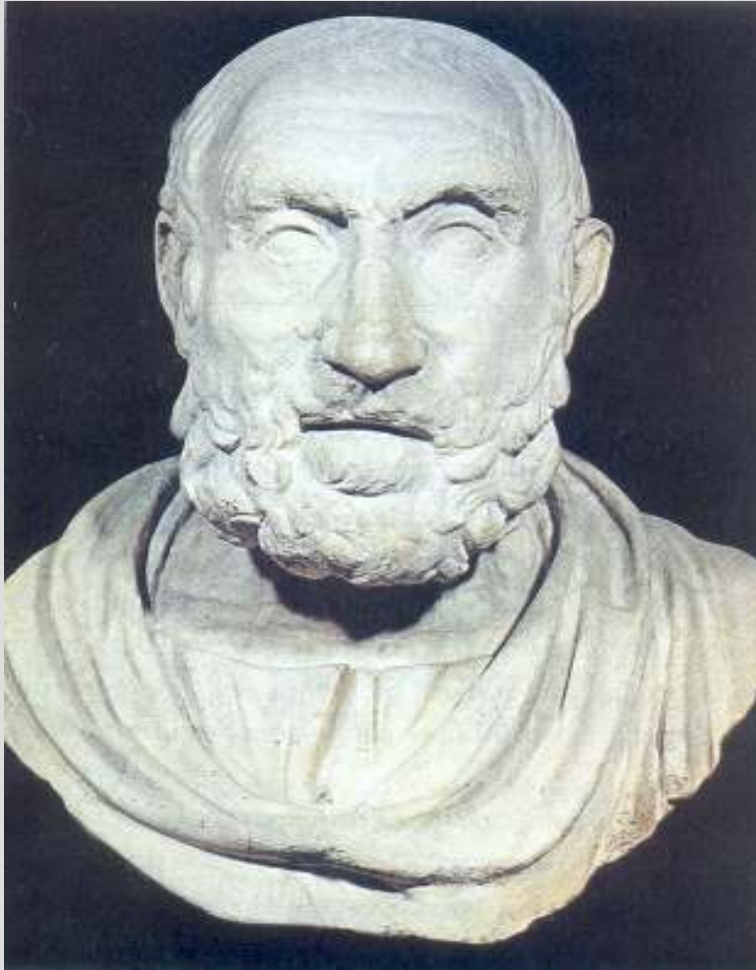
If for one disease many therapeutic approaches have been proposed, that means no one of them is effective



Heterogeneity in the nature of the disease



Diseases' s Management

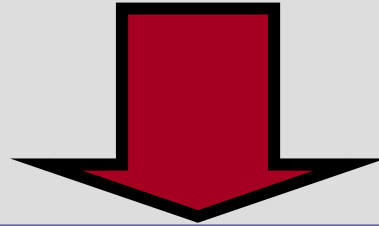


Hippokrates, 460-379 B.C.

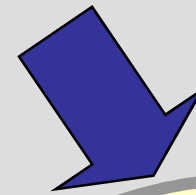
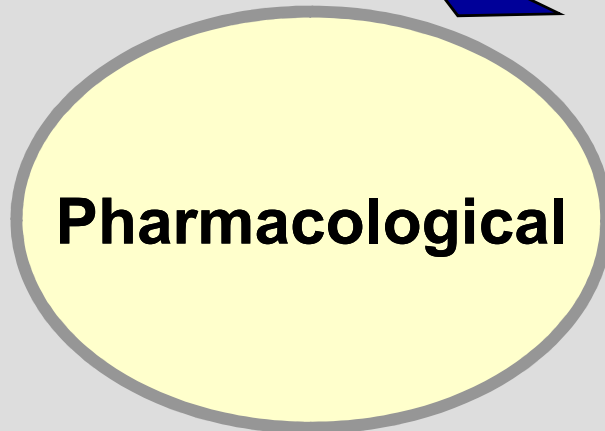
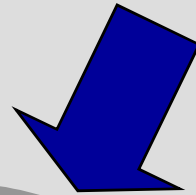
**When drugs fail,
the knife must be
used and when
knife fail, the fire
must be used**



Management of AF



Rhythm and Rate Control

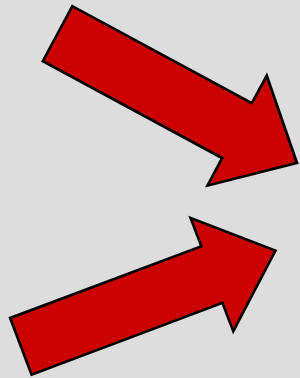




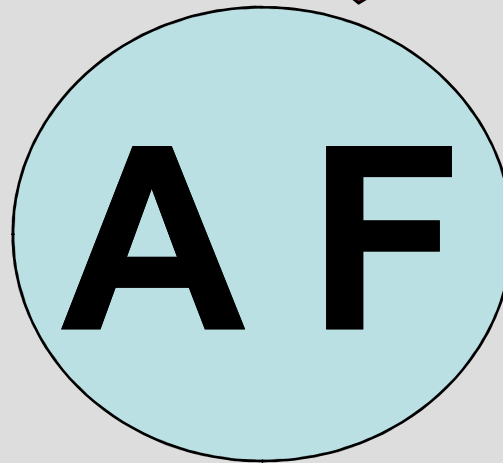
Management of AF

Nonpharmacological Approaches

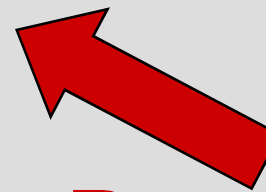
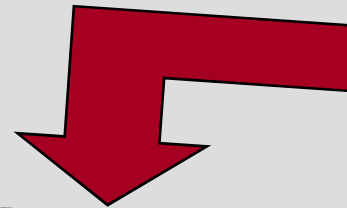
Suppression
Atrial stimulation



Curative
Focal ablation



Palliative
Ablate and
Pace



Rescue
Internal cardioversion



Nonpharmacological Management of AF Ablate and Pace

Candidates

Severely symptomatic drug refractory
(12% intractable despite multiple drug therapy)¹

**Previous failed attempts of RF ablation
of the arrhythmia foci or substrate**

1. Crjins H. Am J Cardiol 1991;68:335-41



Ablate and Pace

Survival

Q.O.L.

Arrhythmia behavior

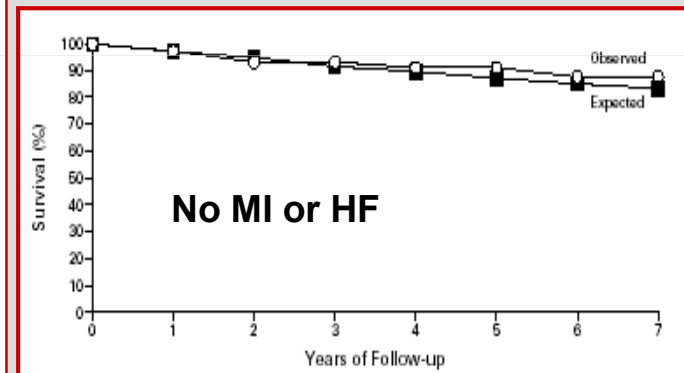
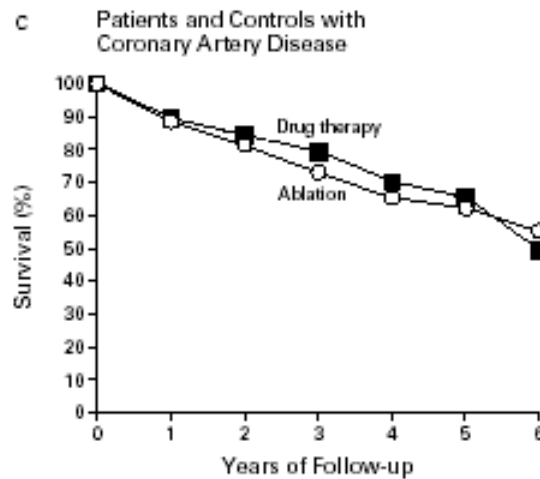
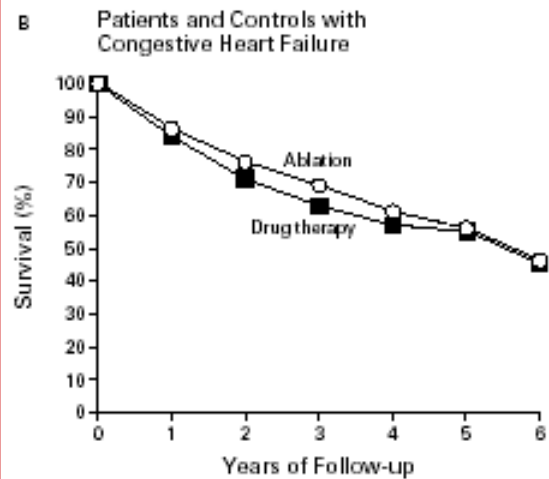
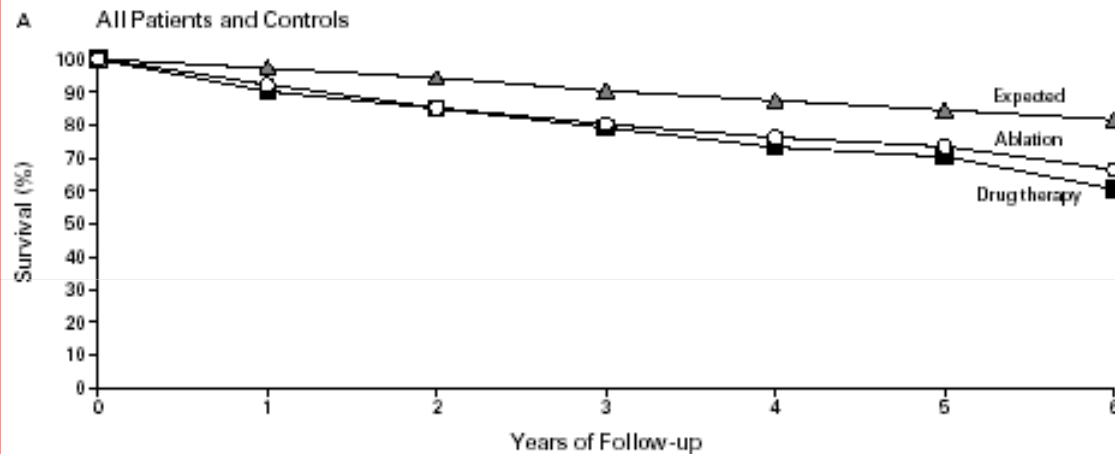
LV mechanics



LONG-TERM SURVIVAL AFTER ABLATION OF THE ATRIOVENTRICULAR NODE AND IMPLANTATION OF A PERMANENT PACEMAKER IN PATIENTS WITH ATRIAL FIBRILLATION

CEVHER OZCAN, M.D., ARSHAD JAHANGIR, M.D., PAUL A. FRIEDMAN, M.D., PHILIP J. PATEL, M.D.,
THOMAS M. MUNGER, M.D., ROBERT F. REA, M.D., MARGARET A. LLOYD, M.D., DOUGLAS L. PACKER, M.D.,
DAVID O. HODGE, M.S., BERNARD J. GERSH, M.B., CH.B., D.PHIL., STEPHEN C. HAMMILL, M.D.,
AND WIN-KUANG SHEN, M.D.

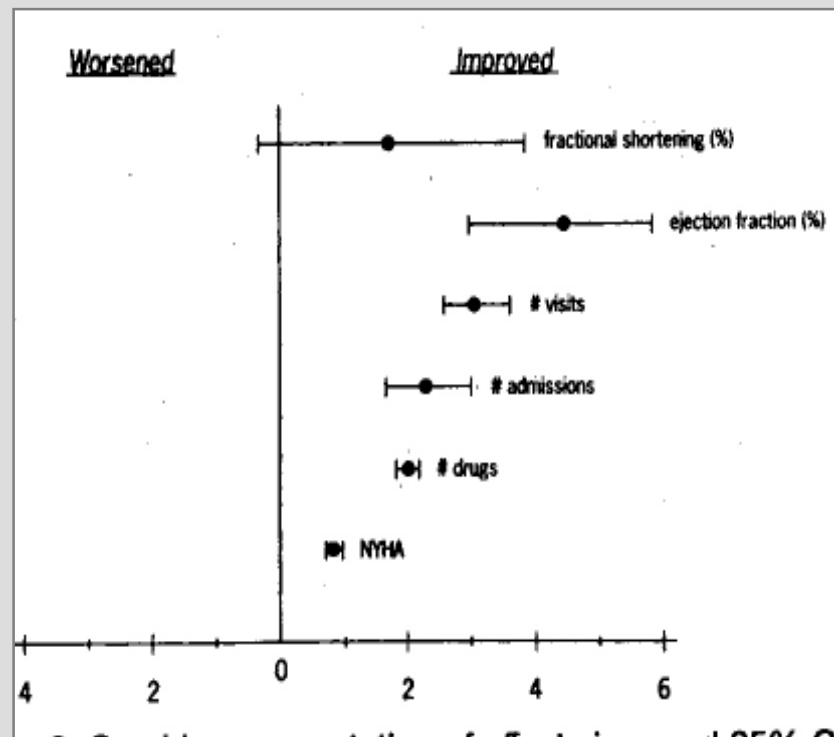
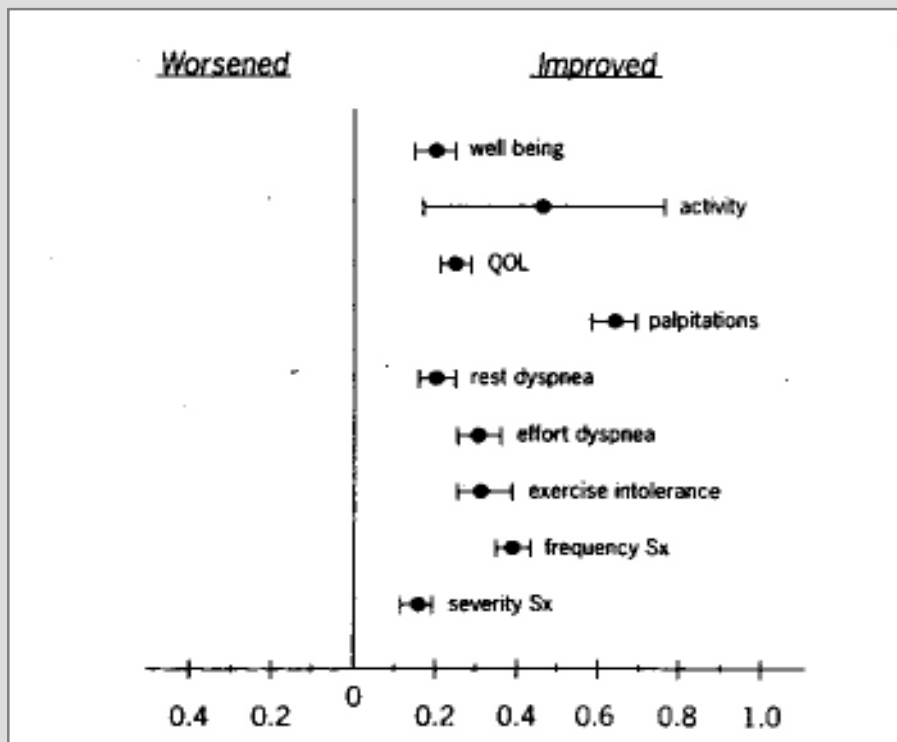
N. Engl J Med 2001;344:1043-51





Ablate and Pace

Meta-analysis (21 studies, 1181 pts)



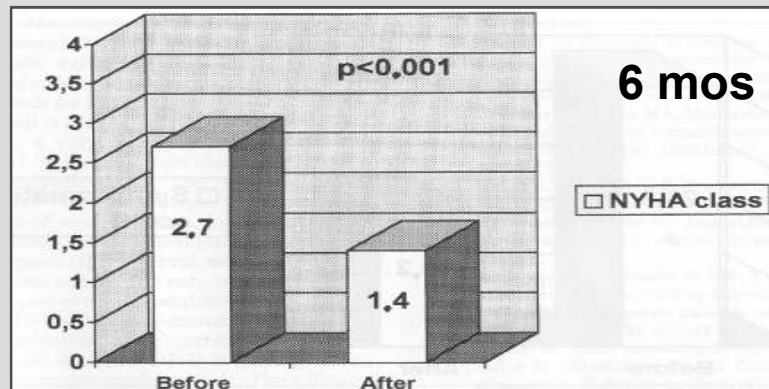
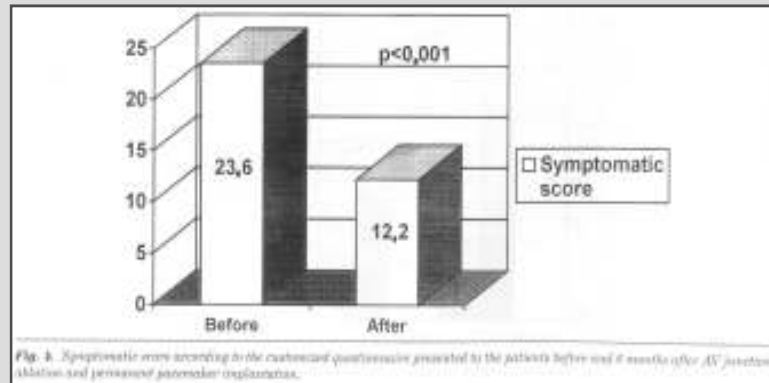
Wood MA, et al. Clinical outcomes after ablation and pacing therapy for atrial fibrillation: a meta-analysis. *Circulation* 2000;101:1138-44

A.G.M.

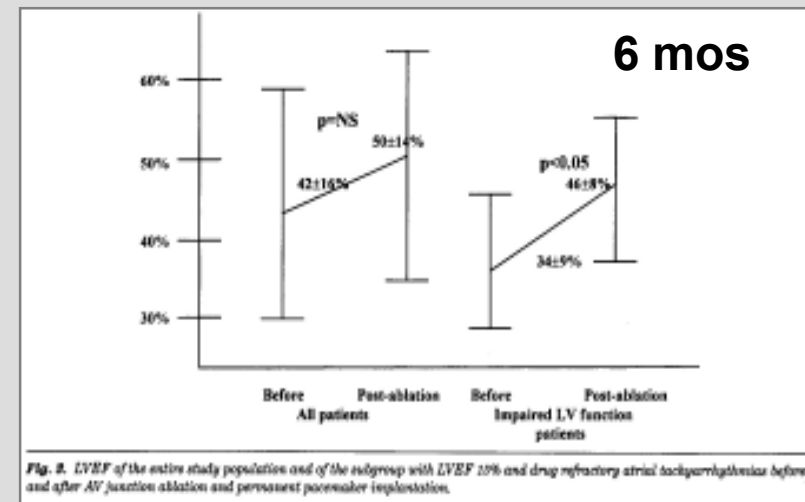


Ventricular Performance and Quality of Life in Patients Who Underwent Radiofrequency AV Junction Ablation and Permanent Pacemaker Implantation Due to Medically Refractory Atrial Tachyarrhythmias

Athanasios G. Manolis, Apostolos G. Katsivas, Eustathios E. Lazaris, Charis V. Vassilopoulos, and Nikolaos E. Louvros
2nd Cardiology Department, Hellenic Red Cross Hospital, Athens, Greece



N=46





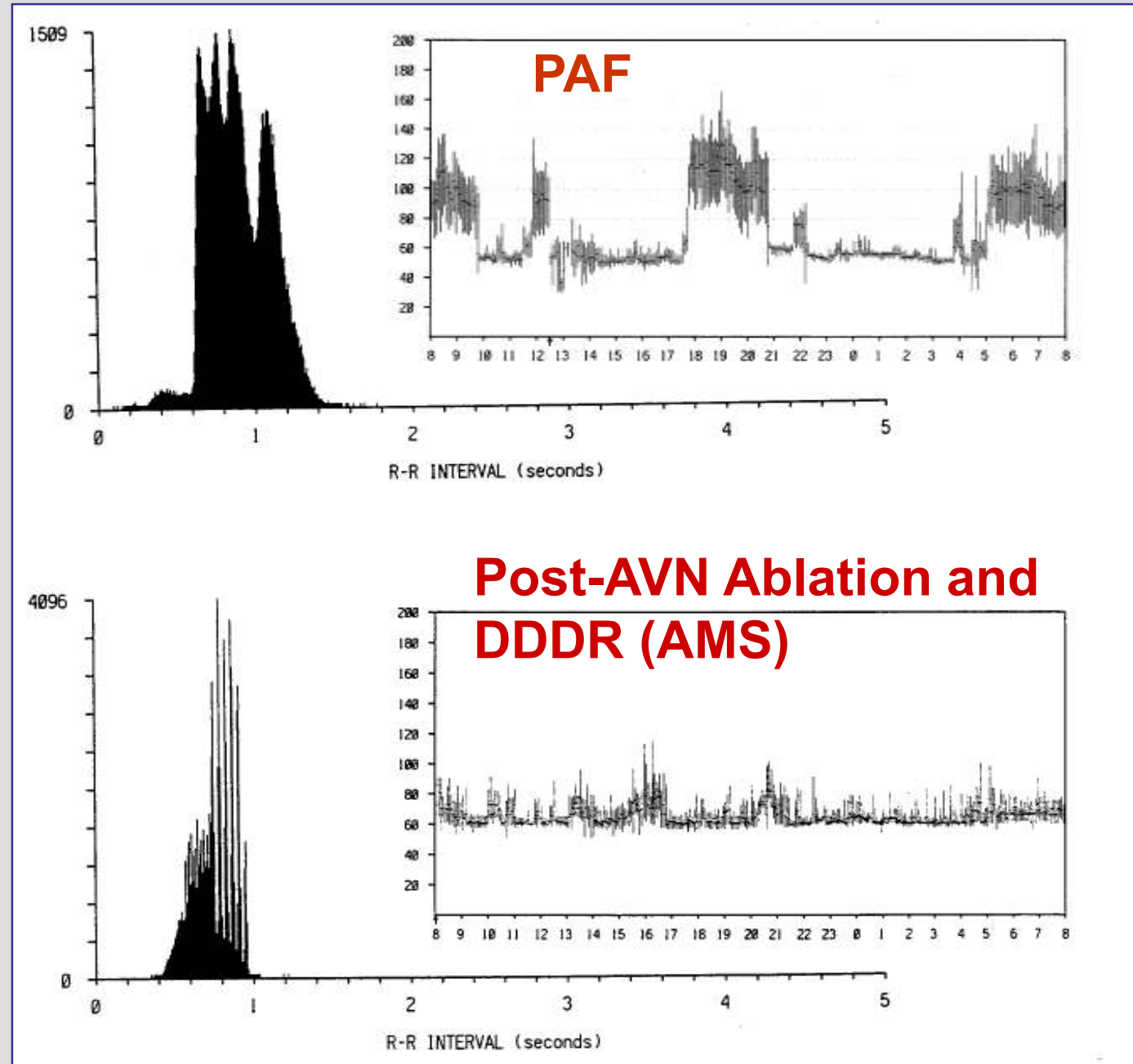
Case Report

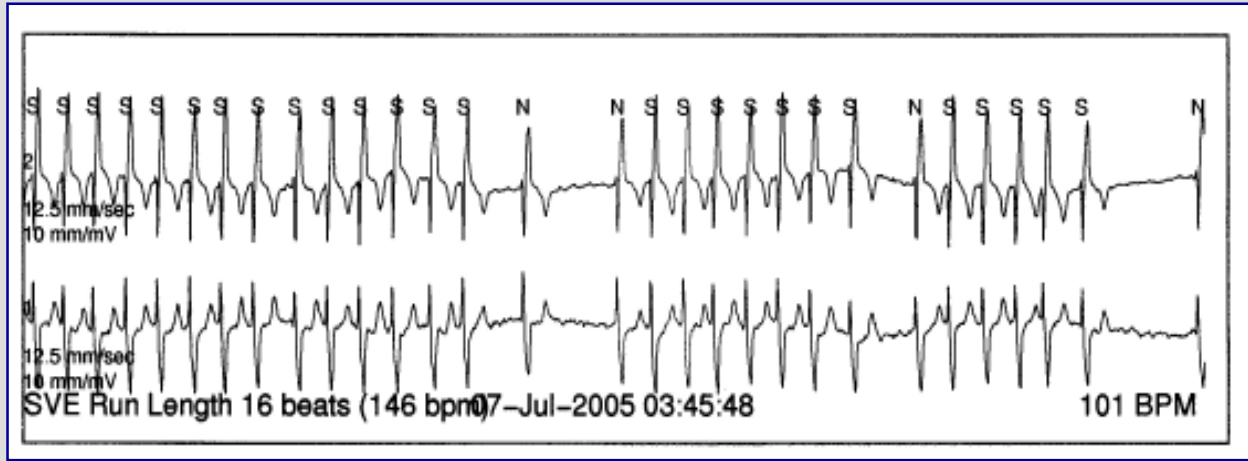
65 y.o. female

PAF, arterial hypertension

Drug-refractory
(3 antiarrhythmics)

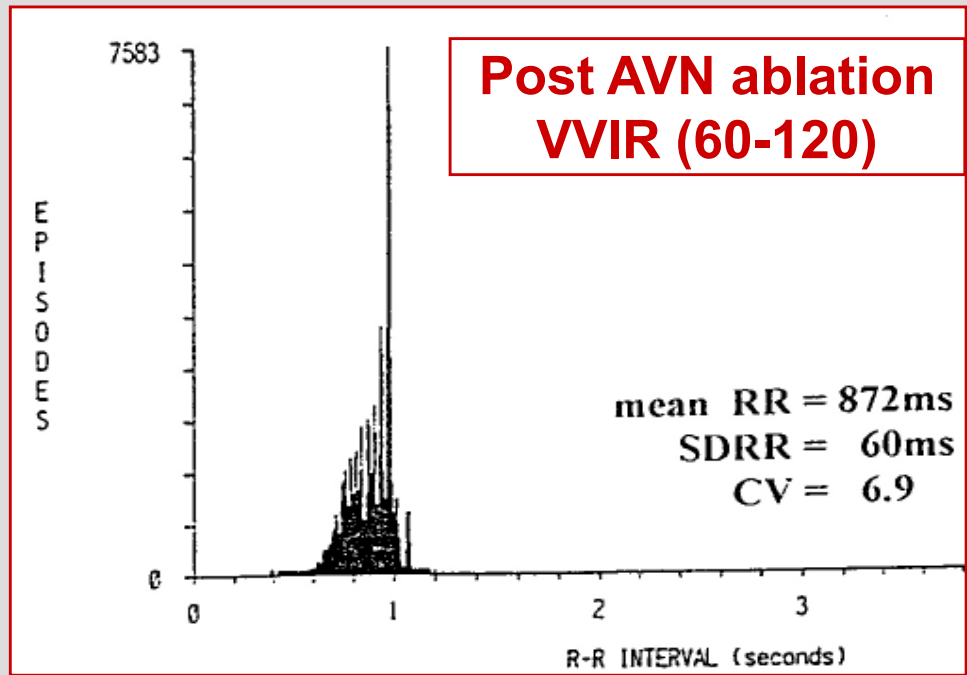
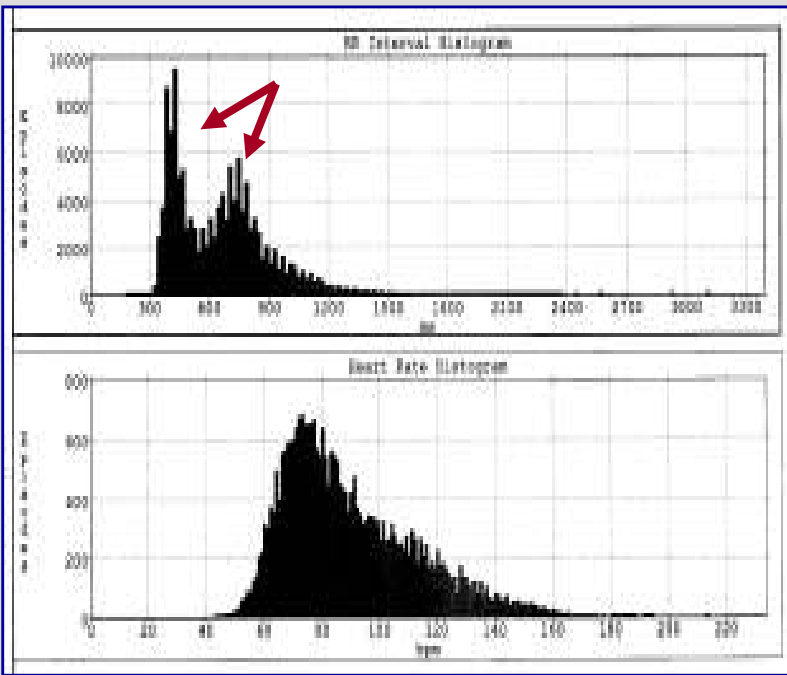
Palpitations
Dyspnea,
Exercise intolerance





Case Report

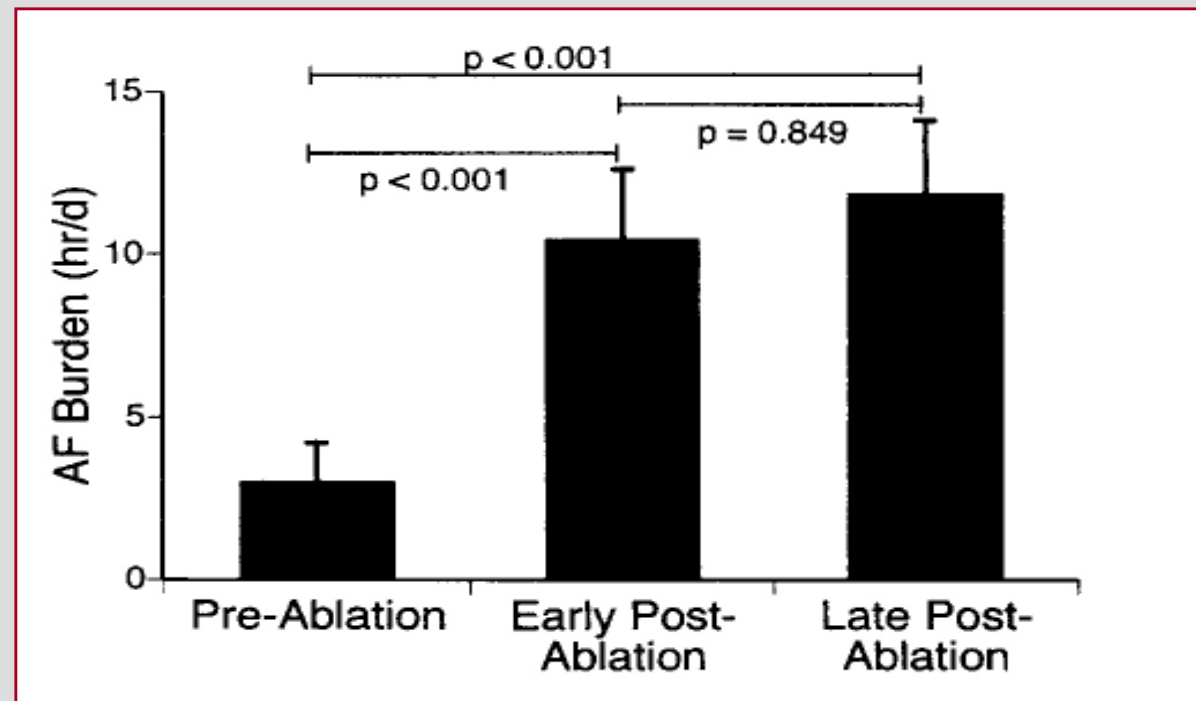
72 y.o. male
Chronic AF
Heart failure
Rest dyspnea
Palpitations





Total Atrioventricular Nodal Ablation Increases Atrial Fibrillation Burden in Patients with Paroxysmal Atrial Fibrillation Despite Continuation of Antiarrhythmic Drug Therapy

RIK WILLEMS, M.D., D. GEORGE WYSE, M.D., PH.D., and ANNE M. GILLIS, M.D., for the Atrial Pacing Periablation for Paroxysmal Atrial Fibrillation (PA³) Study Investigators

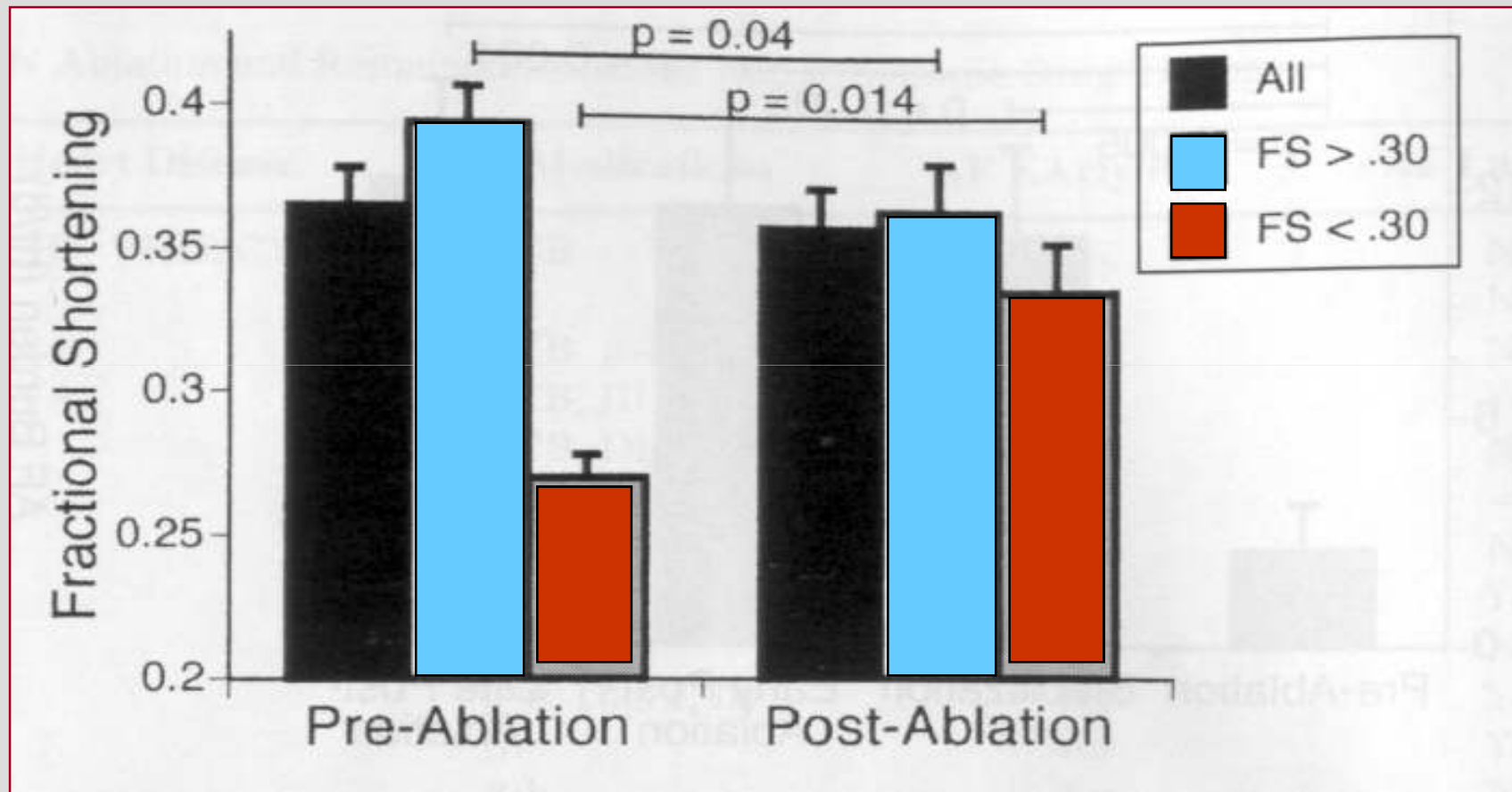


J Cardiovasc Electrophysiol 2003;14:1296-1301



Total Atrioventricular Nodal Ablation Increases Atrial Fibrillation Burden in Patients with Paroxysmal Atrial Fibrillation Despite Continuation of Antiarrhythmic Drug Therapy

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Willems R, et al. J Cardiovasc Electrophysiol 2003;14:1296-1301



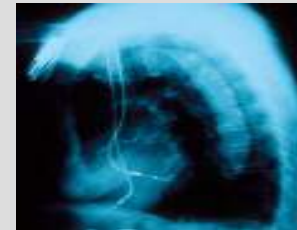
Ablate and Pace

Where to Pace ?

The atrium



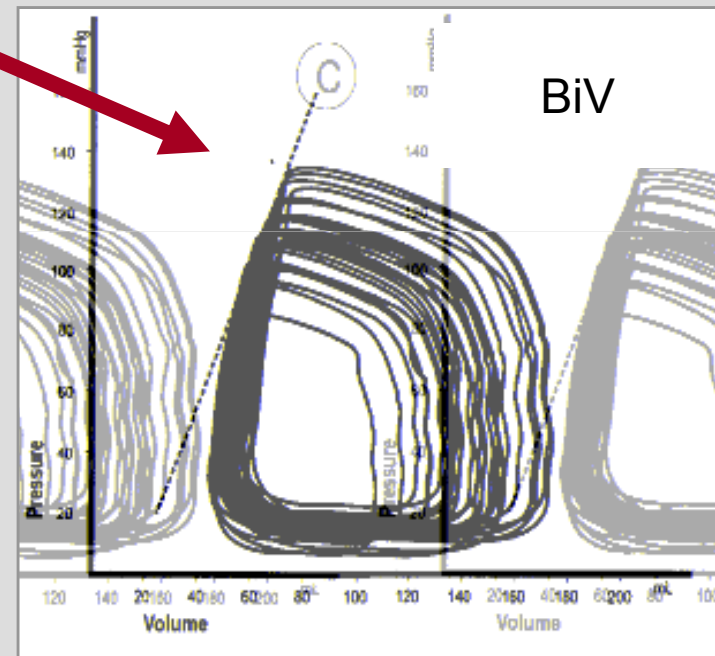
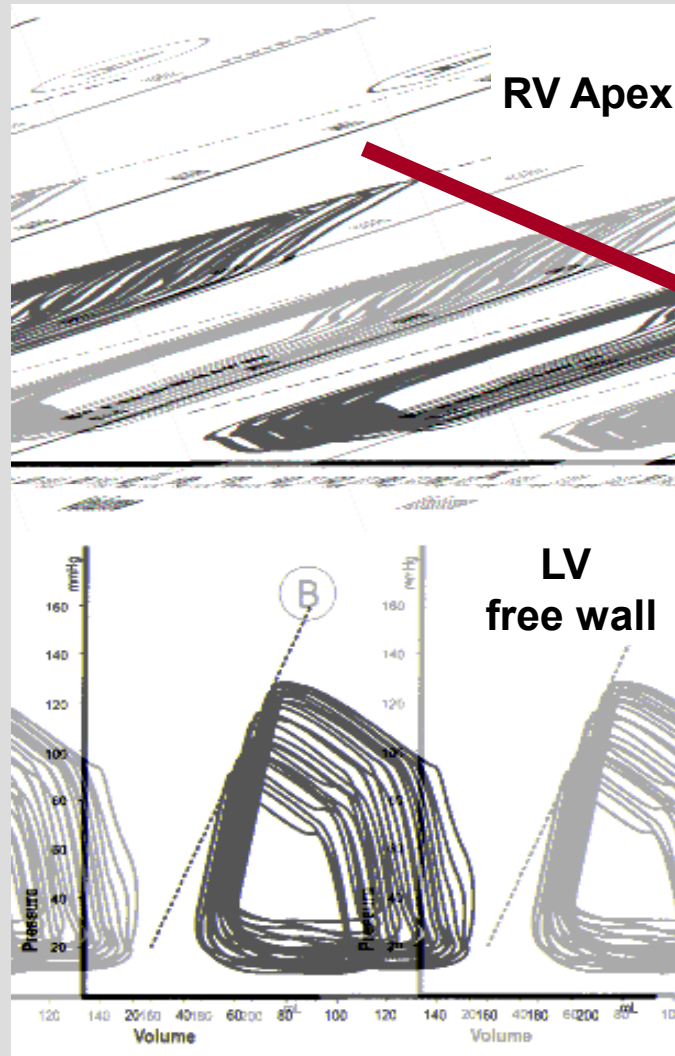
The ventricle





Left Ventricular Mechanics During Right Ventricular Apical or Left Ventricular-Based Pacing in Patients With Chronic Atrial Fibrillation After Atrioventricular Junction Ablation

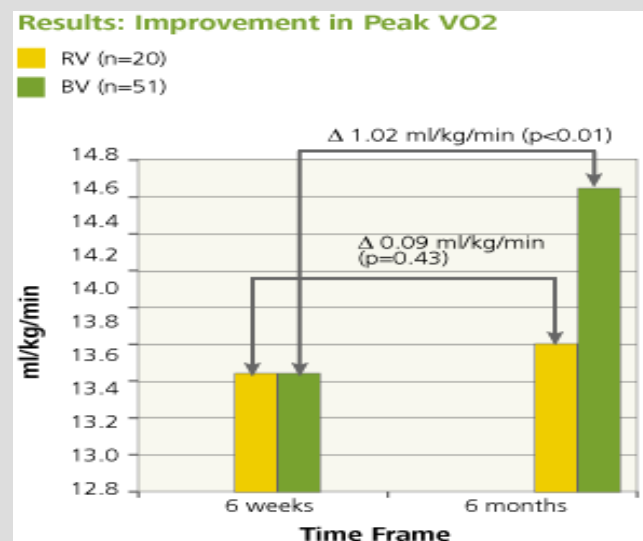
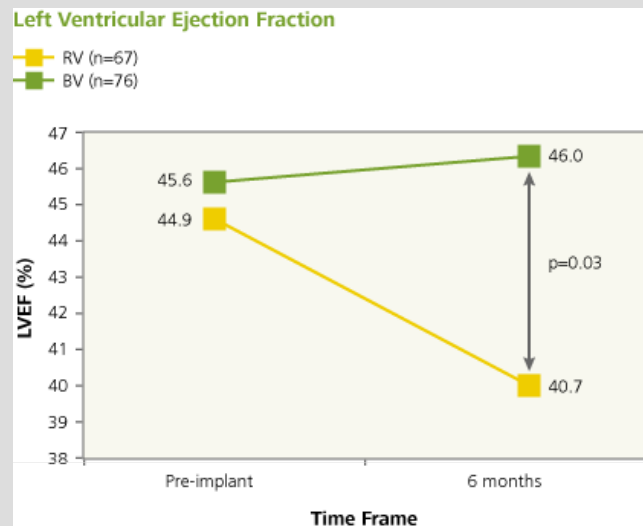
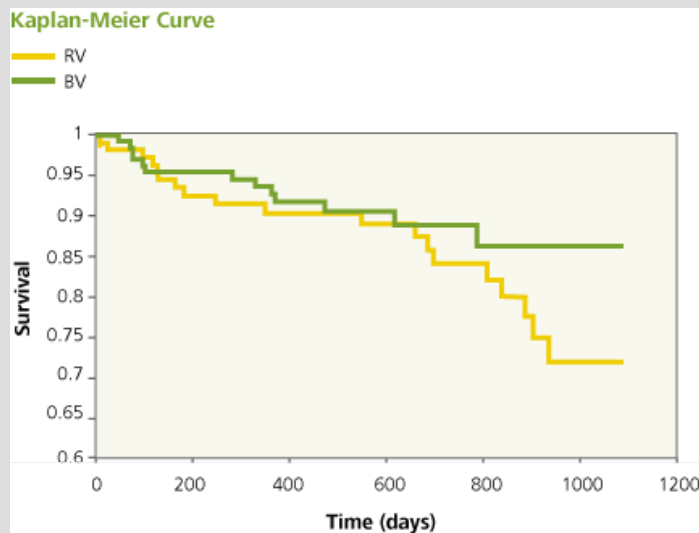
Simantirakis E, et al. J Am Coll Cardiol 2004;43:1013-1018.





PAVE – Post AV Nodal Ablation Evaluation

Chronic AF, 102 pts RV pacing, 146 pts BiV pacing



A.G.M.



Ablate and Pace

Conclusions

- **Palliative therapy**
- **Controls the ventricular rate**
- **Improves the Q.O.L.**
- **Ameliorates the LVEF in pts with cardiomyopathy**
- **Long-term survival is not affected**
- **Alternative pacing sites may further enhance this therapy**



Ablate and Pace



**Things should be simple,
but not too simple**

Albert Einstein

**Rate control
vs
Permanent Pacing and
Dyssynchrony**