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جمعية القلب السعودية
Saudi Heart Association

AF AND HEART FAILURE – INSIGHTS FROM AATAC, CASTLE-AF

Yahya Al Hebaishi, MD
PSCC, Riyadh



AF AND HEART FAILURE – INSIGHTS FROM AATAC, CASTLE-AF

- HF and AF: the twin epidemic of cardiovascular disease.
- Stroke prevention first and always?
- Rate or rhythm control in HF patients?
- AF ablation or AAT?
- Summary

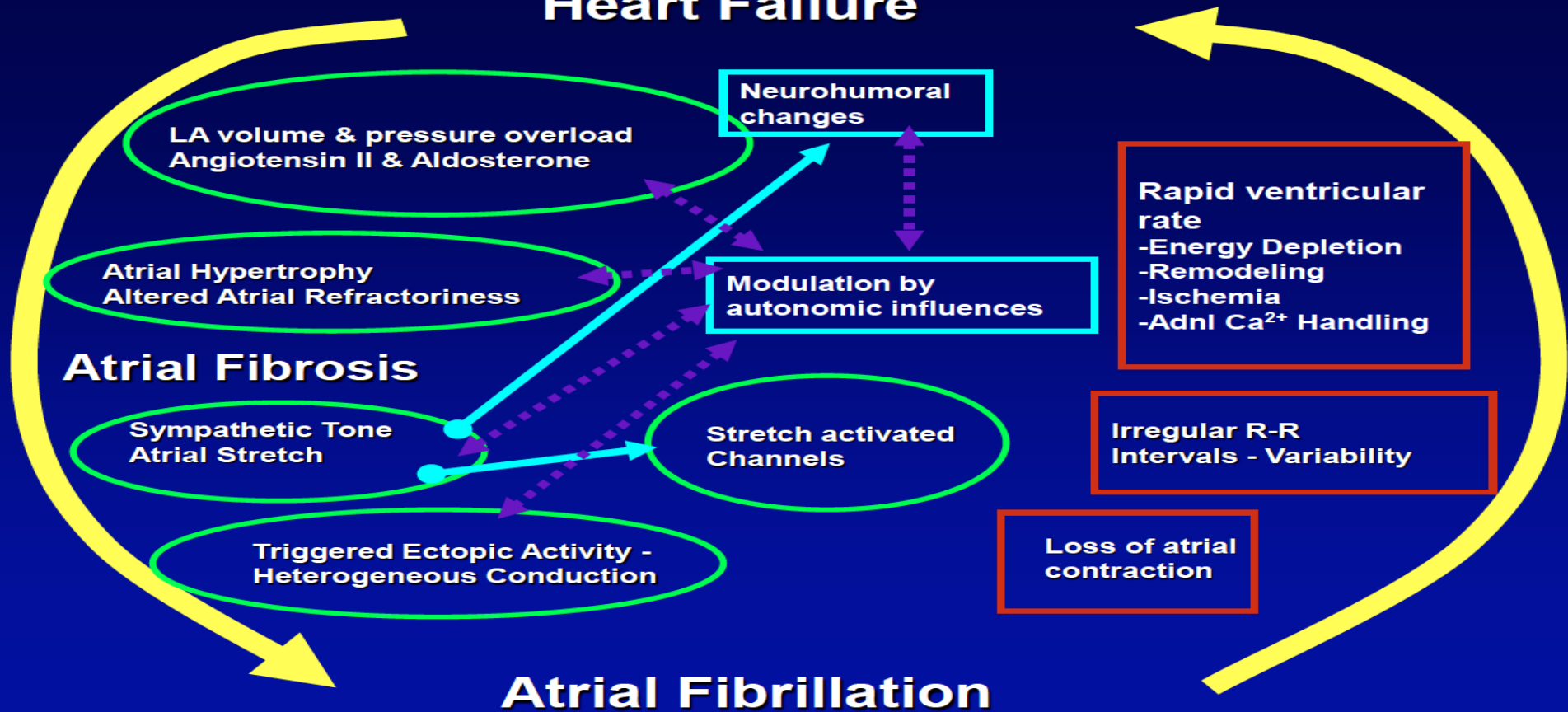


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Heart Failure

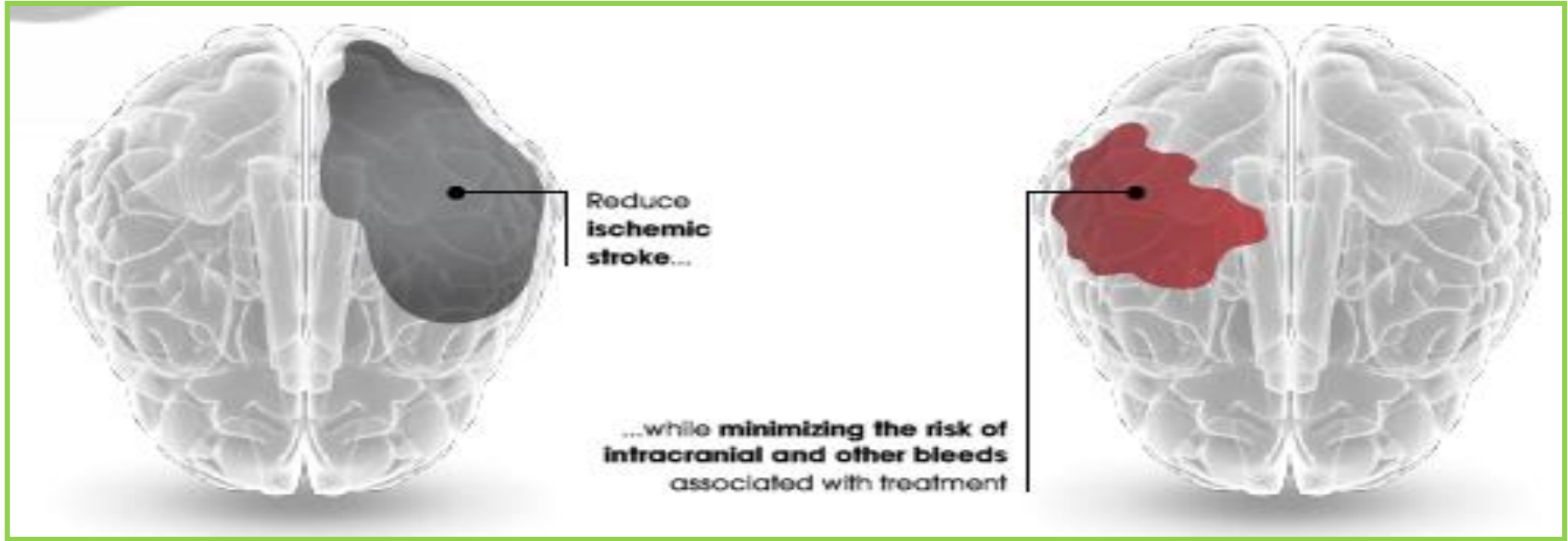
Atrial Fibrillation



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AF AND HEART FAILURE –STROKE PREVENTION



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A young lady with AF

- 44 -Year- old female with non ischemic cardiomyopathy for 3 years.
- Presented to ER with palpitation and heart failure symptoms for 2 days.
- No chest pain, syncope or presyncope
- No DM, HTN or Dyslipidemia
- No previous stroke or TIAs



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A young lady with AF

- Rx include: ACEI and B-blocker on target doses in addition to Lasix 40mg daily, Aldactone 25mg daily.
- Has been complaint with Rx and diet.
- Physical examination: High JVP, irregular rapid pulse and bilateral criptitation .
- ECG showed A. fib with heart rate around 115/min.
- Echocardiogram: EF 35%, LA size 4.2 cm, mild MR, upper mild TR.
- Lab testes including TSH were unremarkable



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A young lady with AF

- Patient received iv diuretics with modest improvement in her symptoms.
- Admitted to the hospital for further management.



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A young lady with AF

- The most appropriate next step for stroke prevention in this patient:
 - ASA 81mg daily
 - No therapy
 - ASA 325mg daily
 - NOAC



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A young lady with AF

- The most appropriate initial therapy in this patient AF:
 - Sotalol 160mg twice daily
 - Immediate CV
 - Flecainide (pill-in-the pocket approach)
 - AF ablation
 - TEE guided CV
 - Digoxin and Verapamil for rate control
 - AV nodal ablation and Biv pacing.



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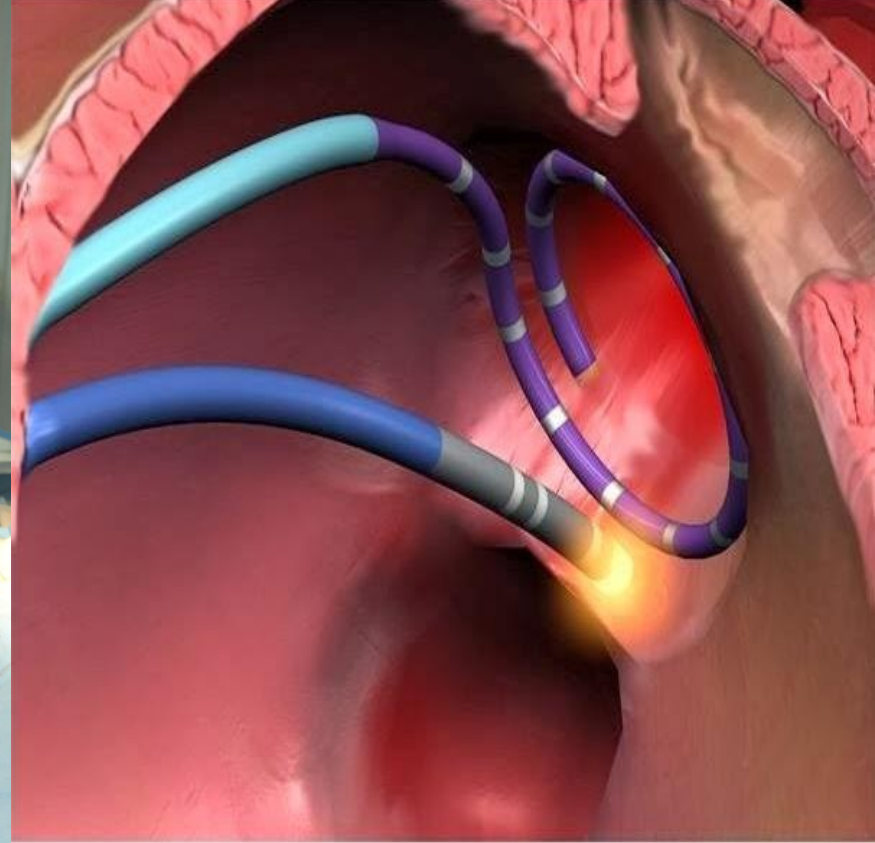
A young lady with AF

- Patient had successful TEE guided CV with improvement in her symptoms.
- Started on Amiodarone therapy for maintenance of sinus rhythm but stopped 6/52 later due to thyroid dysfunction and intolerance.
- Had recurrent A fib and DHF off Amiodarone.



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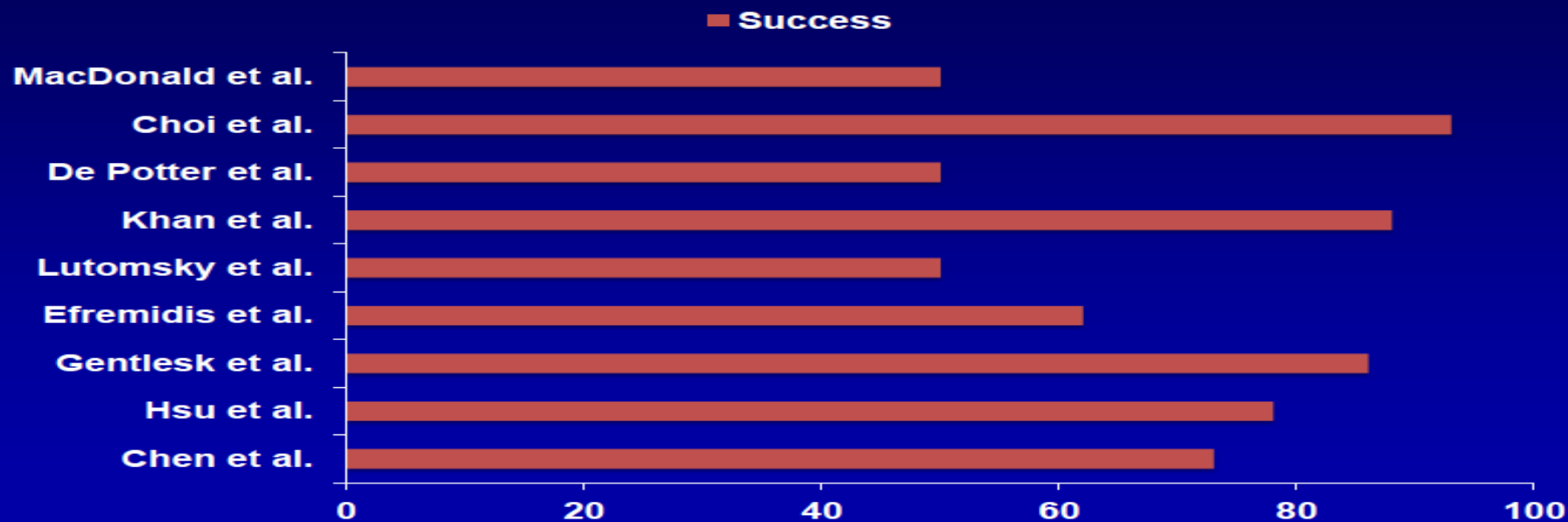
Study Name	Year	Design	Pt. N	Mean Age	Mean LVEF	AF Type	FU (mos)
Chen et al.	2004	Cohort	94	57	36	All	6
Hsu et al.	2004	Case-Control	58	56	35	All	12
Gentlesk et al.	2007	Cohort	67	42	42	PAF, PerAF	3-6
Efremidis et al.	2007	Cohort	13	54	36	PAF, PerAF	9
Lutomsky et al.	2008	Cohort	18	56	41	PAF	6
Khan et al.	2008	RCT	41	60	27	All	6
De Potter et al.	2010	Case-Control	26	49	43	All	6
Choi et al.	2010	Case-control	15	56	37	PAF, PerAF	16
MacDonald et al.	2010	RCT	22	62	36	PerAF	10



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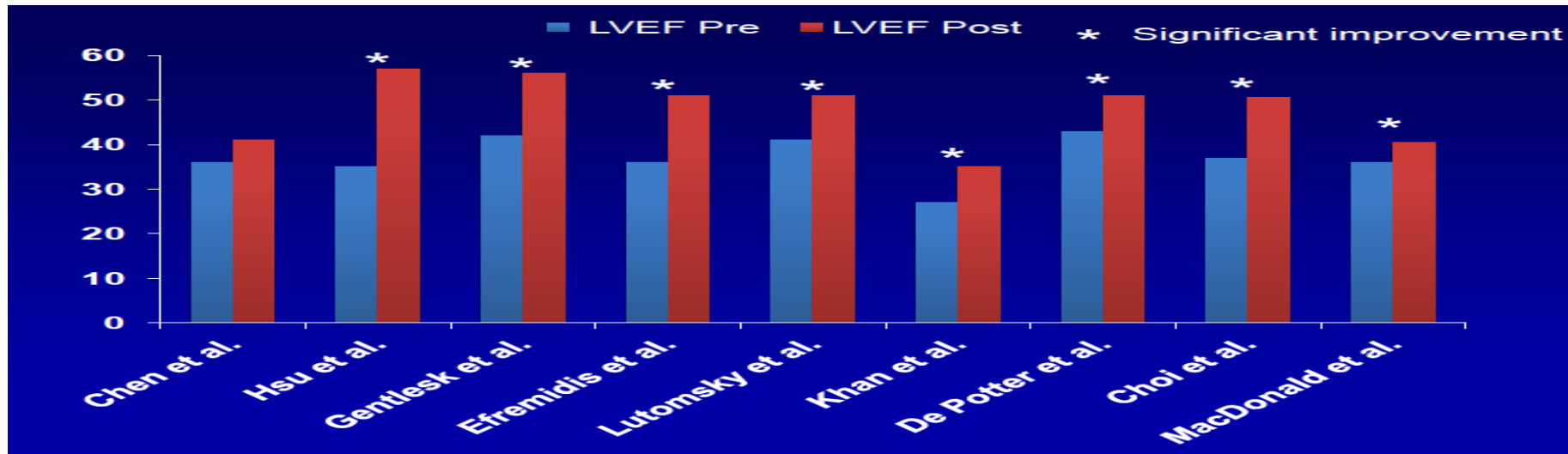


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AATAC-AF in HEART FAILURE

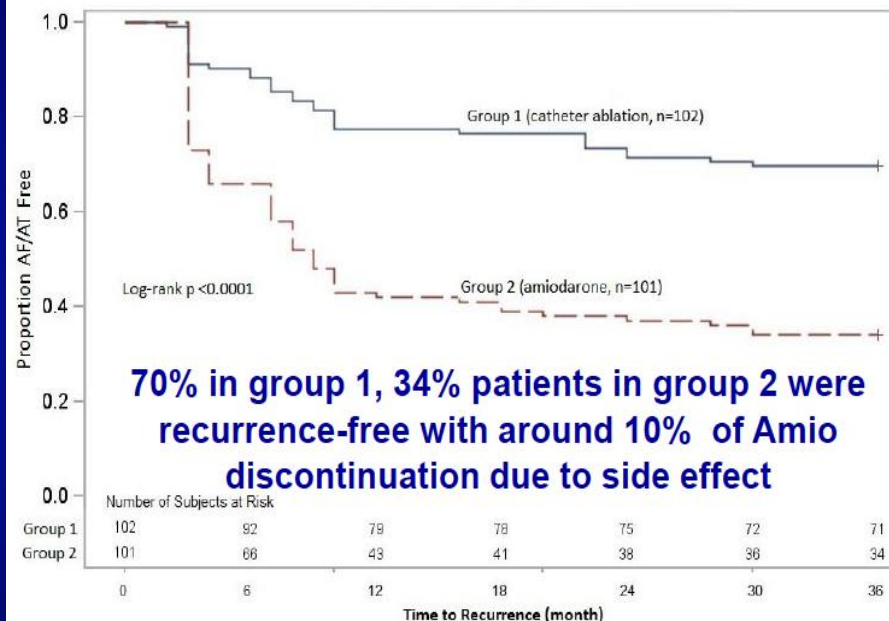
Measures	No Recurrence (n=105)		Recurrence (n=98)		P for change between groups
	Baseline	Change	Baseline	Change	
LVEF (%)	28.8±10	9.6±7.4	30.2±9	4.2±6.2	<0.001
6MWD (meter)	410±102	18±40	413±111	7±34	0.038
MLFHQ Score	53±24	-6±13	49±26	-1.4±12	0.013

LVEF- left ventricular ejection fraction

6MWD – 6 minute walk distance

MLHFQ - Minnesota Living with Heart Failure questionnaire

Data are summarized as mean ± standard deviation



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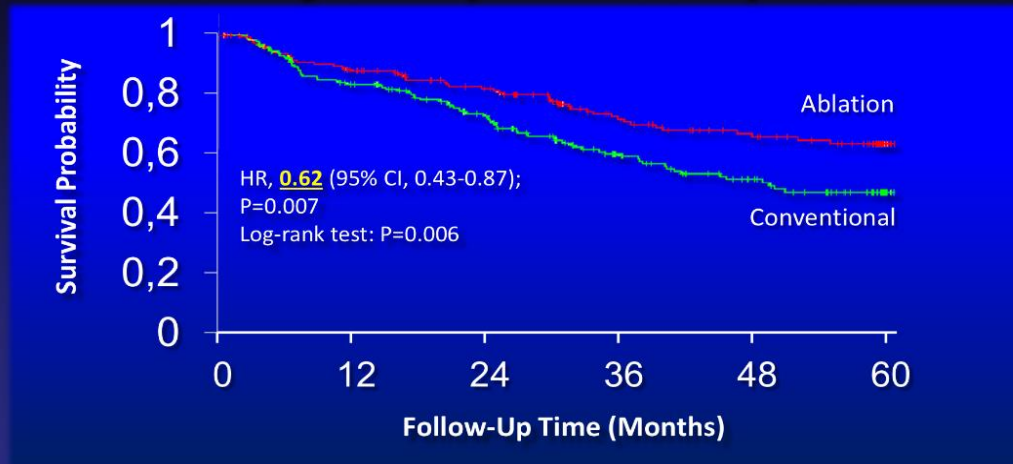
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Results-CASTLE AF

Primary Composite Endpoint



Patients at Risk

CASTLE-AF: Primary and Secondary End Points

End point	Hazard ratio	95% CI	P
All-cause mortality and worsening heart failure	0.62	0.43–0.87	0.007
All-cause mortality	0.53	0.32–0.86	0.011
Worsening heart-failure admissions	0.56	0.37–0.83	0.0004
Cardiovascular mortality	0.49	0.29–0.84	0.008
Cardiovascular hospitalization	0.72	0.52–0.99	0.041



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SUMMARY

- AF is common in HF and often disabling arrhythmia
- The goals of AF therapy are to prevent thromboembolic events and to improve patient quality of life
- Few drugs are available for rhythm control strategy in HF patients.
- AF ablation should be considered especially in patients with HF related to AF.



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