



Atrial Fibrillation in Heart Failure patients implanted with a Cardiac Resynchronization Therapy device: 1-year results of the randomized MASCOT study.

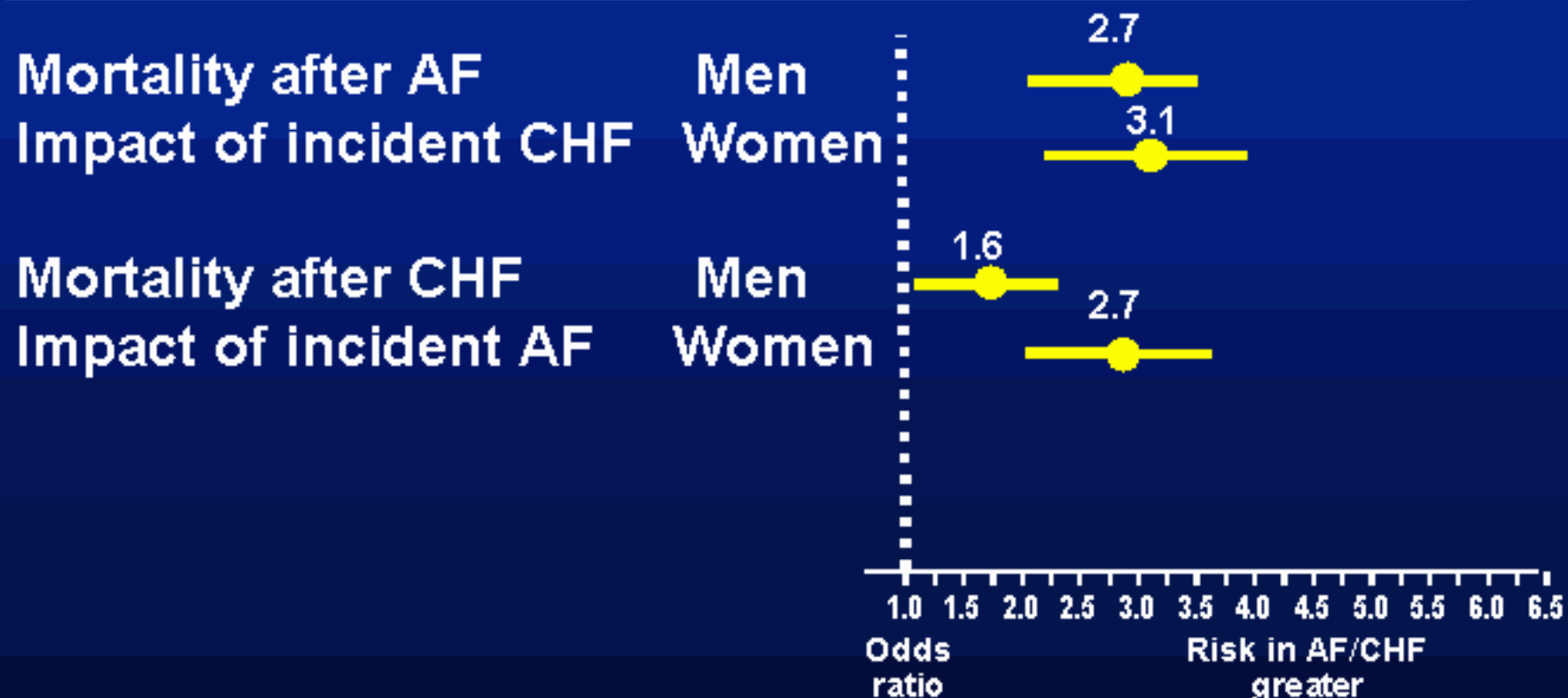
C. Muto¹; T. Maounis²; A. Schuchert³; MG. Bongiorno⁴; R. Frank; T. Vesterlund⁶; J. Brachmann⁷; A. Vicentini⁸; G. Jauvert⁹; G. Tadeo¹⁰; D. Gras¹¹; F. Lisi¹²; A. Dello Russo¹³; JL. Rey¹⁴; E. Boulogne¹⁵; L. Padeletti¹⁶ on behalf of the MASCOT study Investigators

¹Ospedale Loreto Mare, Naples, Italy, ²Onassis Cardiac Center, Athens, Greece, ³Friedrich-Ebert-Krankenhaus, Neumünster, Germany, ⁴Ospedale Cisanello, Pisa, Italy, ⁵Hôpital La Pitié Salpêtrière, Paris, France, ⁶Aalborg Sygehus Syd, Aalborg, Denmark, ⁷Klinikum Coburg, Coburg, Germany, ⁸"Dott. Pederzoli" s.p.a., Peschiera del Garda, Italy, ⁹InParys, Paris, France, ¹⁰Ospedale Generale Di Zona Valduce, Como, Italy, ¹¹Nouvelle Clinique Nantaise, Nantes, France, ¹²Azienda Ospedaliera Cannizzaro, Catania, Italy, ¹³Policlinico Universitario "A. Gemelli", Rome, Italy, ¹⁴Hopital Sud, Amiens, France, ¹⁵St Jude Medical, Zaventem, Belgium, ¹⁶Ospedale Careggi, Florence, Italy

Together, atrial fibrillation and heart failure create a vicious circle



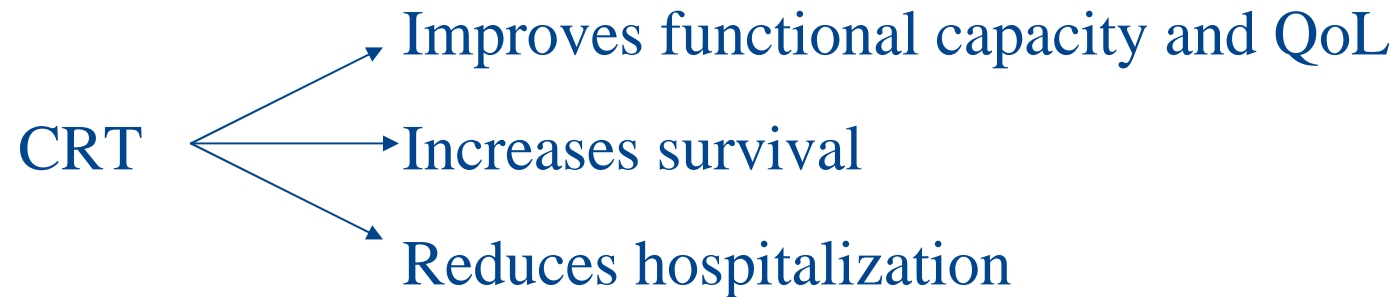
Risk of new onset AF in patients with CHF or Risk of new onset CHF in patients with AF in 1470 subjects from Framingham



HF and CRT

CLINICAL
EVIDENCE

HF is a debilitating syndrome

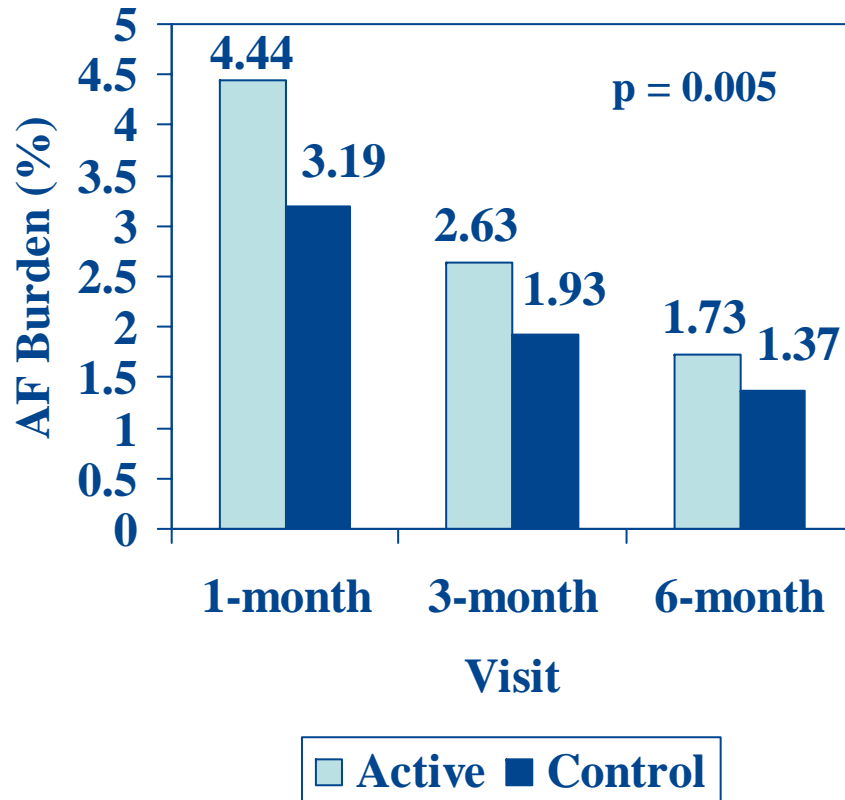


COST-
EFFECTIVENESS

HF is an expensive disease

CRT is a cost effective therapy

AF Prevention by pacing: Background

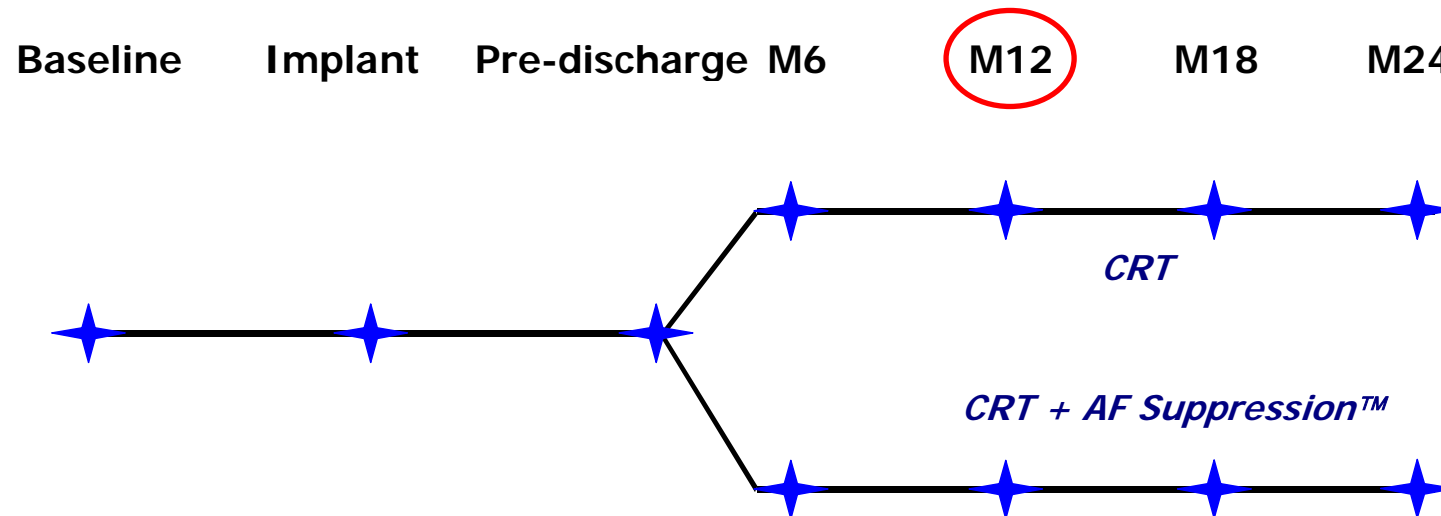


The ADOPT-A study demonstrated that the AF Suppression™ algorithm is safe and decreases symptomatic AF burden significantly in patients with sick sinus syndrome and AF at each follow up visit.

MASCOT - Study design

Multicenter, single-blind, randomized, parallel study evaluating **the safety and efficacy of a specific AOP algorithm** (AF Suppression™, St Jude Medical, Sylmar, CA) in CRT patients.

After successful CRT device implantation, and before hospital discharge, the patients were randomly assigned to AOP ON (n=197) versus OFF (n=197) for the duration of follow-up.



MASCOT – Conclusions

The MASCOT study is the 1st study that investigated prospectively the development of AF in CRT patients.

The incidence of permanent AF is much lower than expected in the CRT population (3.3%) and thus the efficacy of atrial overdrive pacing could not be assessed.

AOP appears to be safe and well tolerated by heart failure patients and does not impair the response to CRT.

AOP should be switched OFF to save battery energy and could be turned ON based on device diagnostics and patient symptoms in case of atrial tachyarrhythmias.