APAF-CRT

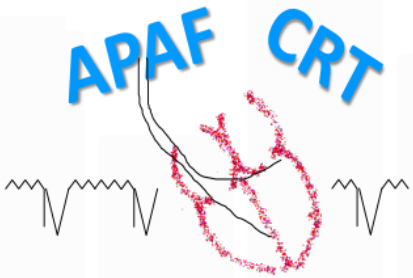
P. Pařízek

I. interní kardioangiologická klinika

LF UK a FN Hradec Králové

XXVII. Výroční sjezd České kardiologické společnosti

Brno, 12. – 15. května 2019



A randomized controlled trial of AV junction ablation and cardiac resynchronization therapy in patients with permanent atrial fibrillation and narrow QRS (APAF - CRT)

Michele Brignole, Evgeny Pokushalov, Francesco Pentimalli, Pietro Palmisano, Enrico Chieffo, Eraldo Occhetta, Fabio Quartieri, Leonardo Calò, Andrea Ungar, Lluis Mont for the **A**blate and **P**ace for **A**trial **F**ibrillation (**APAF**) Investigators

Brignole M. et al. Eur Heart J 2018; 39 (45): 3999-4008

Cíle a hypotéza

- **Testována hypotéza, že ablace AV junkce se zavedením biventrikulární stimulace je superiorní oproti farmakologické kontrole komorové odpovědi v redukci srdečního selhání a hospitalizací u nemocných s permanentní fibrilací síní a úzkým QRS komplexem**

Brignole M. et al. Eur Heart J 2018; 39 (45): 3999-4008

Inclusion & exclusion criteria

Inclusion:

1. **Severely symptomatic permanent AF (>6 months) unsuitable for AF ablation or in which AF ablation had failed;**
2. **Narrow QRS (i.e., ≤110 ms); *and,***
3. **At least one hospitalization for HF in the previous year**

Exclusion:

1. **Hospital NYHA class IV and systolic blood pressure ≤80 mmHg**
2. **Severe concomitant non-cardiac disease;**
3. **Need for surgical intervention;**
4. **Myocardial infarction within the previous 3 months;**
5. **Previously implanted devices.**

Brignole M. et al. Eur Heart J 2018; 39 (45): 3999-4008

Soubor a délka sledování

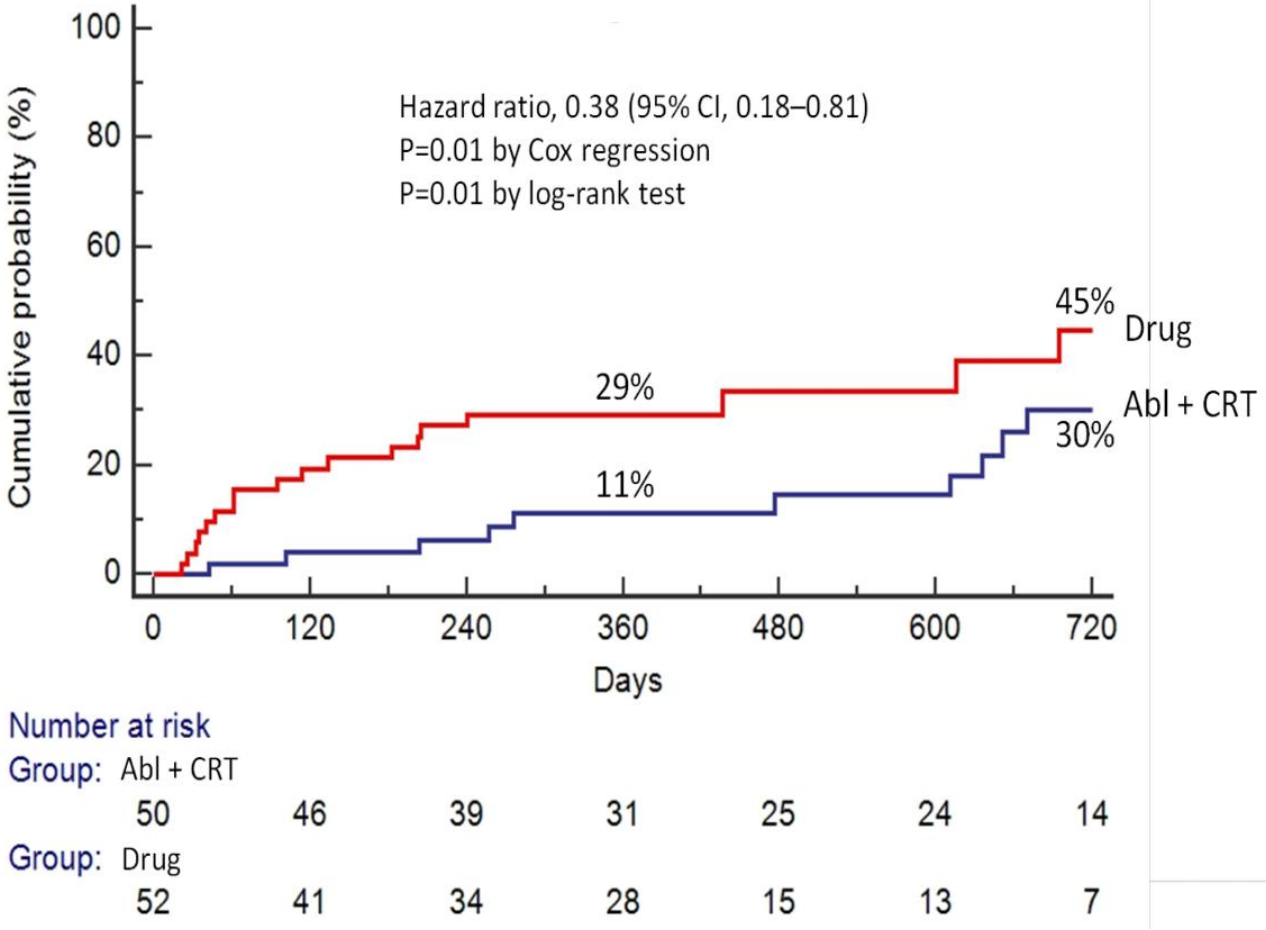
- **randomizováno 102 pacientů**
- **průměrný věk 72 ± 10 let**
- **F-U: medián 16 měsíců**

Table I Patient characteristics on enrolment

	Abl + CRT ($n = 50$)	Drug ($n = 52$)
Age (years)	71 ± 12	72 ± 9
Male sex	28 (56)	28 (54)
Body mass index	27.5 ± 4.2	29.7 ± 7.7
Systolic blood pressure (mmHg)	124 ± 17	120 ± 14
History of AF		
Duration of permanent AF (months)	13 (8–36)	18 (8–43)
Previous intermittent AF	23 (46)	23 (44)
Duration of intermittent AF (months)	24 (9–53)	18 (12–48)
Previous electrical cardioversion/s	18 (36)	21 (40)
Previous attempt/s at catheter ablation of AF	5 (10)	5 (10)
Number of hospitalizations for HF in the previous year	1.5 ± 0.7	1.7 ± 1.2
Symptoms and physical capacity		
New York Heart Association class ≥III	32 (64)	34 (65)
European Heart Rhythm Association class ≥III	38 (76)	31 (60)
Echocardiogram		
Left ventricular end-diastolic diameter (mm)	59 ± 12	56 ± 9
Left ventricular end-systolic diameter (mm)	44 ± 10	43 ± 11
Ejection fraction	41 ± 12	40 ± 12
Ejection fraction <35%	20 (40)	23 (44)

Brignole M. et al. Eur Heart J 2018; 39 (45): 3999-4008

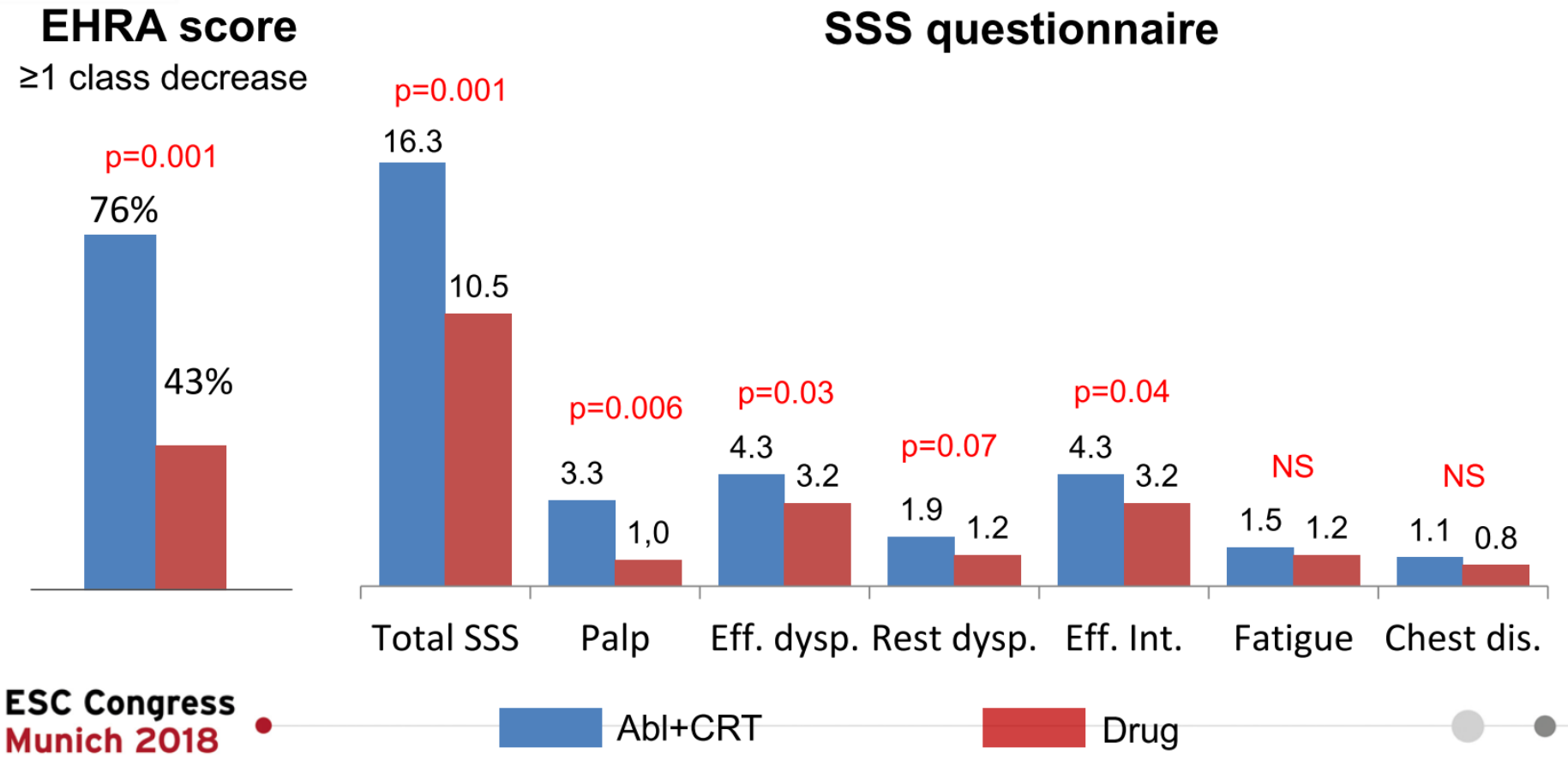
Primary Outcome: Death for HF, or Hospitalization for HF, or Worsening HF



ESC Congress
Munich 2018

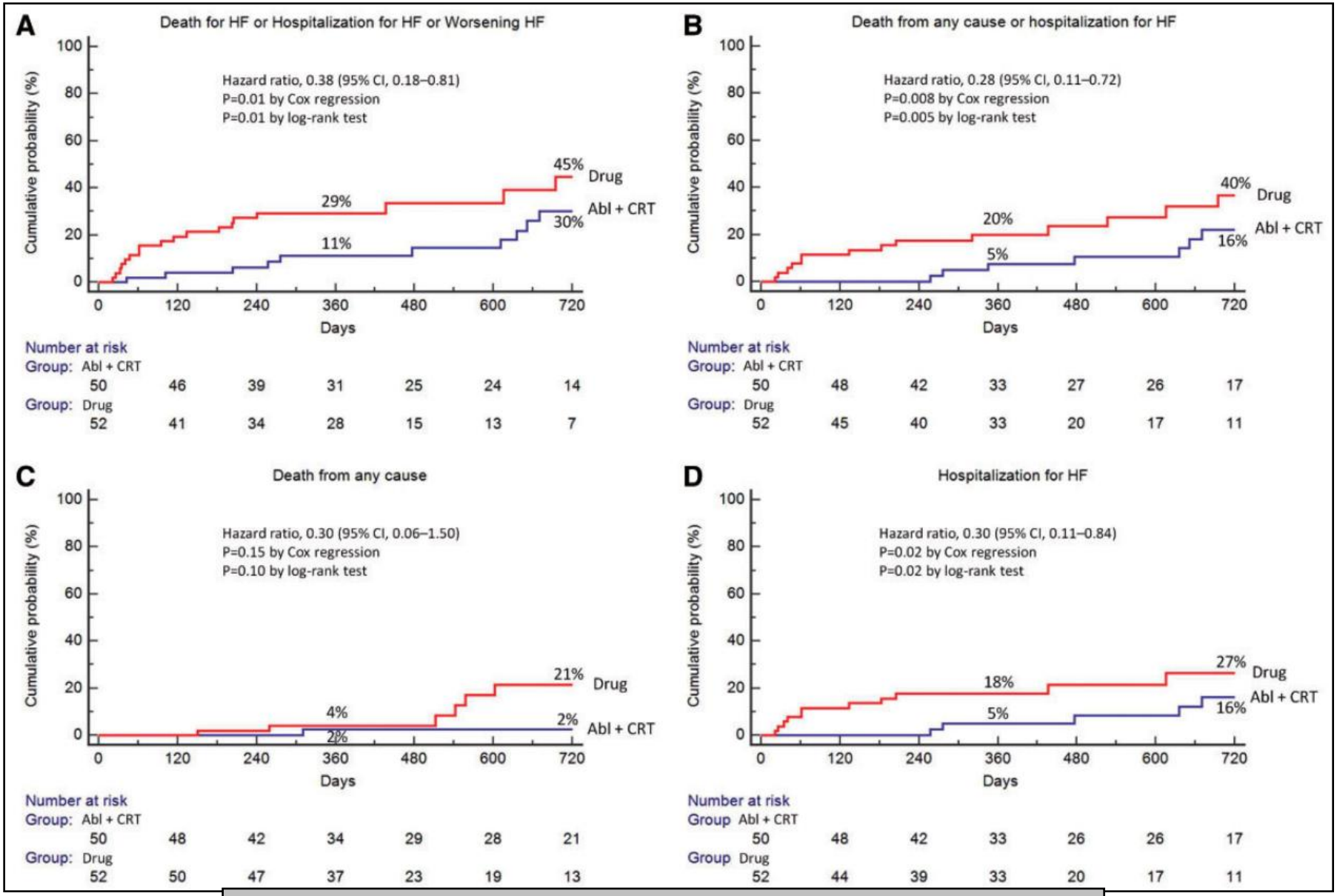
Brignole M. et al. Eur Heart J 2018; 39 (45): 3999-4008

Symptoms & Physical Limitation at 1-year visit



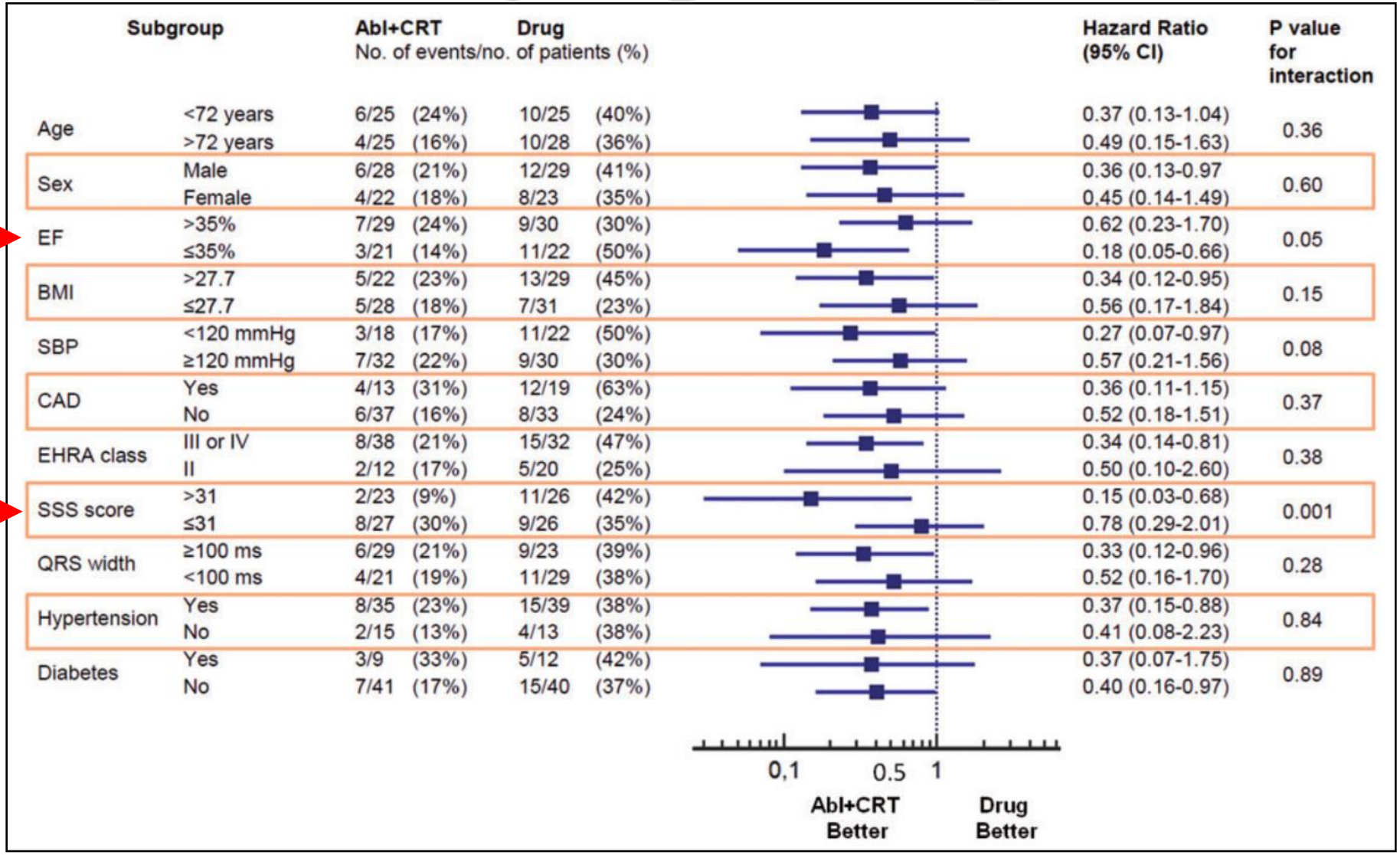
Brignole M. et al. Eur Heart J 2018; 39 (45): 3999-4008

Primární a sekundární cíle

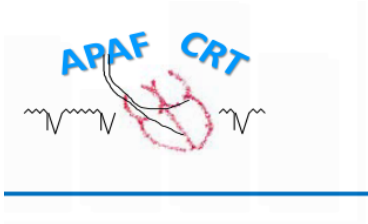


Brignole M. et al. Eur Heart J 2018; 39 (45): 3999-4008

Analýza podskupin



Brignole M. et al. Eur Heart J 2018; 39 (45): 3999-4008



Conclusions

In elderly patients with permanent AF and narrow QRS, AV junction ablation and CRT:

- reduced the risks of death due to HF, or hospitalization due to HF, or worsening HF by 62%, *and*
- improved specific symptoms of AF by 36%

Brignole M. et al. Eur Heart J 2018; 39 (45): 3999-4008