

Was ist neu in der Kardiologie?



Einführung zum 19. Symposium

Köln 14. Januar 2014

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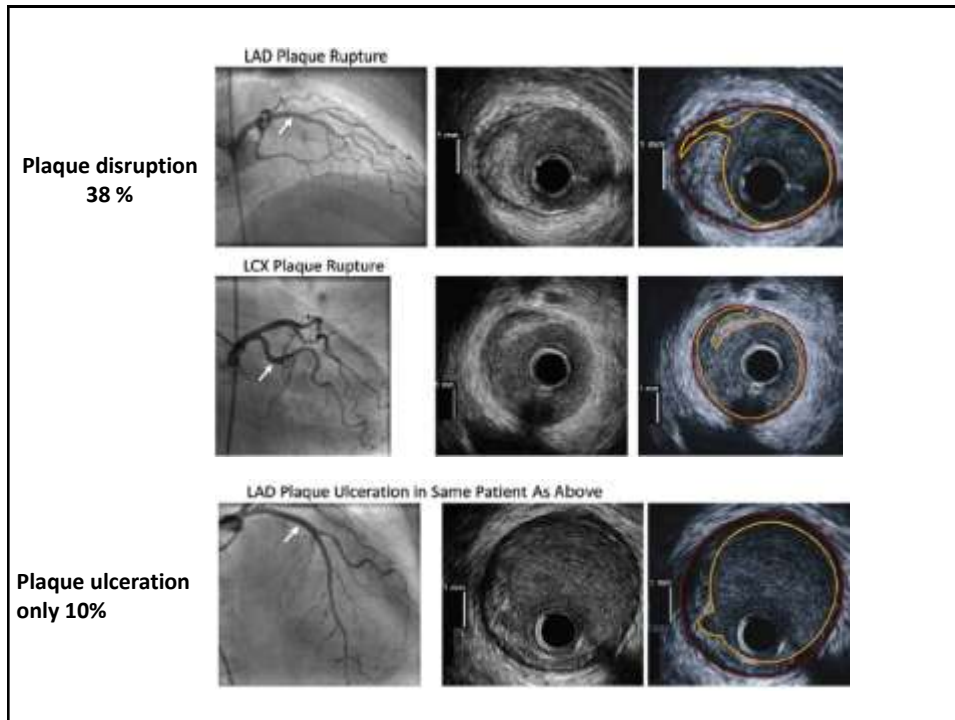


Mechanisms of Myocardial Infarction in Women Without Angiographically Obstructive Coronary Artery Disease

Background—There is no angiographically demonstrable obstructive coronary artery disease (CAD) in a significant minority of patients with myocardial infarction, particularly women.

Conclusions—**Plaque rupture and ulceration** are common in women with myocardial infarction without angiographically demonstrable obstructive coronary artery disease. In addition, **Late Gadolinium Enhancement (LGE)** is common in this cohort of women, with an ischemic pattern of injury most evident. **Vasospasm** and embolism are possible mechanisms of ischemic LGE without plaque disruption.

Reynolds et al., Circulation 2011;124:1414



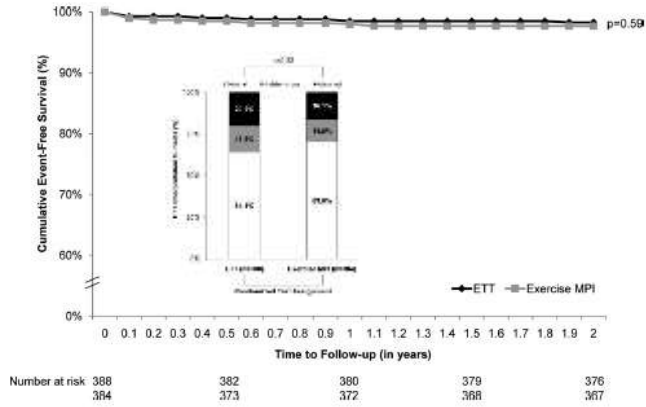
**Comparative Effectiveness of Exercise Electrocardiography
With or Without Myocardial Perfusion Single Photon
Emission Computed Tomography in Women With Suspected
Coronary Artery Disease**
Results From the What Is the Optimal Method for Ischemia Evaluation in
Women (WOMEN) Trial

**n = 824, 63 Jahre, pos. Familienanamnese 47%,
Raucher 45%, Hochdruck 55%, Follow up 2 Jahre,**

Was ist besser?

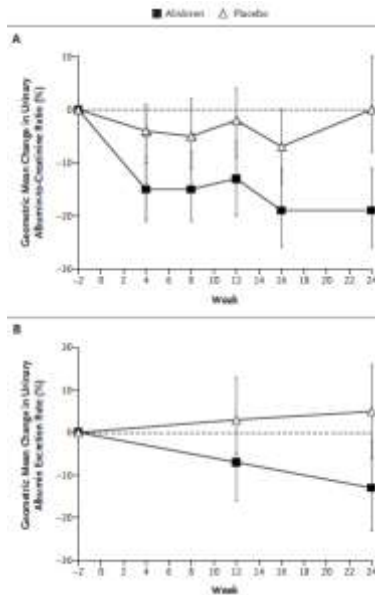
Shaw et al., Circulation 2011; 124: 1239

Kaplan-Meier major adverse cardiovascular event-free survival by randomized test assignment to an exercise treadmill test (ETT) vs exercise myocardial perfusion imaging (MPI.)



Shaw et al., Circulation 2011; 124: 1239

Aliskiren Combined with Losartan in Type 2 Diabetes and Nephropathy (Parving et al., N Engl J Med 2008;358:2433)



Aliskiren (Rasilez®)

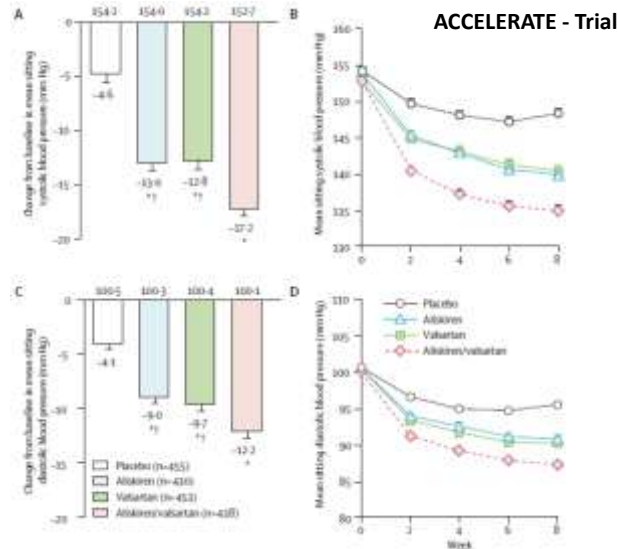
- „**Starke Blutdrucksenkung**“ – aber nicht stärker als bei anderen Produkten.
- „**Erste neue Substanzklasse seit 10 Jahren**“ – Das bringt dem Patienten keinen Vorteil, da das neue Medikament nicht besser als die üblichen Präparate wirkt.
- „**Vielversprechendes Organschutzpotential**“ – Genauer weiß man offenbar nicht. Bewährte Hochdruckmittel senken die Häufigkeit von Herz-Kreislaufkrankheiten. Für Rasilez(R) ist das nicht bewiesen.
- „**Placebo-ähnliche Verträglichkeit**“ – Klingt gut, sagt aber nichts. Arzt und Patient dürfen sich nicht in falscher Sicherheit wiegen. Nebenwirkungen von Medikamenten werden oft erst nach der Markteinführung entdeckt.
- Was fehlt? **Der Preis!** Aliskiren (Rasilez(R)) ist viel teurer als bewährte Arzneimittel gegen hohen Blutdruck.
Hier die monatlichen Behandlungskosten im Vergleich:
Clortalidon 5€/Monat, Enalapril 5-10€/Monat, Metoprolol 6-9€/Monat,
Aliskiren 35-41€/Monat.

Der BGA zu Aliskiren:

1. Es ist bislang ungeklärt, ob eine Blockierung des Renin-Angiotensin-Aldosteron-Systems (RAAS) am Startpunkt überhaupt einen Vorteil darstellt.
2. **Langzeitdaten** zur Wirksamkeit und Sicherheit liegen im Gegensatz zu preiswerteren Therapiealternativen für Aliskiren nicht vor.
3. Patienten müssen außerordentlich therapietreu sein, da die Einnahme gemäß Zulassung immer zur **gleichen Tageszeit** erfolgen soll.

Efficacy and safety of combined use of aliskiren and valsartan in patients with hypertension: a randomised, double-blind trial

Oparil et al., Lancet 2007; 370: 221



Ärzte Zeitung online, 22.12.2011

Kommentieren (0) ★★★★★



Große Studie mit Aliskiren gestoppt

Eine große Studie zum Nutzen des Reninhemmers Aliskiren bei Typ-2-Diabetikern mit hohem kardiovaskulärem Risiko ist jetzt vorzeitig beendet worden. Grund ist die bei einer Zwischenanalyse festgestellte Zunahme von unerwünschten Ereignissen im Aliskiren-Studienarm.

BASEL (ab). In der multinationalen Studie mit dem Akronym ALTITUDE sollte geprüft werden, ob eine Behandlung mit Aliskiren zusätzlich zur Standardtherapie geeignet ist, bei Hochrisikopatienten mit Typ-2-Diabetes die Inzidenz von kardiovaskulären und renalen Ereignissen weiter zu reduzieren.

Für die Studie sind in 36 Ländern 8606 Patienten mit Typ-2-Diabetes und eingeschränkter Nierenfunktion rekrutiert worden.

Geklärt werden sollte, ob eine duale Blockade des Renin-Angiotensin-Systems (RAS) mit einem ACE-Hemmer oder AT₁-Rezeptorblocker (Sartan) als Teil der Standardtherapie plus einer Zusatztherapie mit Aliskiren (Rasilez®) zu einer weiteren Reduktion von kardiovaskulären und renalen Ereignissen führt. Geplant war eine Follow-up-Dauer von vier Jahren.



Hypertonie bei Diabetikern: Eine große Studie zur Therapie mit Aliskiren wurde jetzt gestoppt.

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Nach mittlerweile 18 bis 24 Monaten - war eine Zunahme von unerwünschten Ereignissen (Hypotensionen, Hyperkaliämien, renale Komplikationen, nicht tödliche Schlaganfälle) festgestellt worden.

ORIGINAL CONTRIBUTION

„Receiving active therapy each month was associated with an additional day free from risk of cardiovascular death.“
(JAMA. 2011;306:2588)

Association Between Chlorthalidone Treatment of Systolic Hypertension and Long-term Survival

John B. Kostis, MD
 Javier Cabrera, PhD
 Jerry Q. Cheng, PhD
 Nora M. Cosgrove, RN
 Yingzi Deng, MD, MS
 Sara L. Pressel, MS
 Barry R. Davis, MD, PhD

Context In the Systolic Hypertension in the Elderly Program (SHEP) trial, conducted between 1985 and 1990, antihypertensive therapy with chlorthalidone-based stepped-care therapy resulted in a lower rate of cardiovascular events than placebo but effects on mortality were not significant.

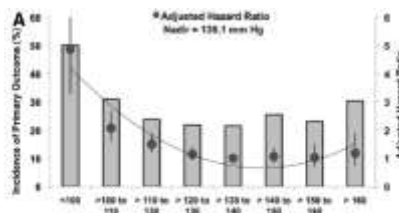
Objective To study the gain in life expectancy of participants randomized to active therapy at the 22-year follow-up.

Design, Setting, and Participants A National Death Index ascertainment of death in the long-term follow-up of a randomized, placebo-controlled, clinical trial (SHEP) of patients aged 60 years or older with isolated systolic hypertension. Recruitment was between March 1, 1985, and January 15, 1988. After the end of a 4.5-year randomized phase of the SHEP trial, all participants were advised to receive active therapy. The time interval between the beginning of recruitment and the ascertainment of death by National Death Index (December 31, 2006) was approximately 22 years (21 years 10 months).

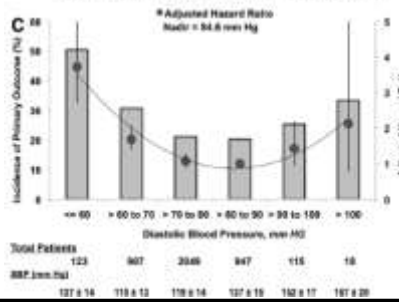
Main Outcome Measures Cardiovascular death and all-cause mortality.

ANTIHYPERTENSIVE DRUG therapy has been shown to decrease nonfatal and fatal cardiovascular events in controlled clinical trials and meta-analyses.¹⁻⁷ However, long-term data

What Is the Optimal Blood Pressure in Patients After Acute Coronary Syndromes?



Bangalore et al.,
 Circulation 2010;122:2142



ESC/EAS Guidelines for the management of dyslipidaemias

European Heart Journal (2011) 32, 1769

Type 2 diabetes

The recent finding that the **incidence of diabetes may increase with statins** should not discourage institution of treatment; the absolute reduction in the risk of CVD in high risk patients outweighs the possible adverse effects of a very small increase in the incidence of diabetes.

(nur) Trommelschlegelzehen !

Differential Clubbing and Cyanosis



Clubbing (Trommelschlegelfinger)

Lung disease:

Lung cancer mainly non-small cell (54% of all cases) in small cell lung cancer (< 5% of cases)
 Interstitial lung disease
 Tuberculosis
 Pleural Mesothelioma
 A-V fistula

Heart disease:

Any disease featuring chronic hypoxia
 Congenital cyanotic heart disease (most common cardiac cause)
 Subacute bacterial endocarditis
 Atrial myxoma

Gastrointestinal and hepatobiliary:

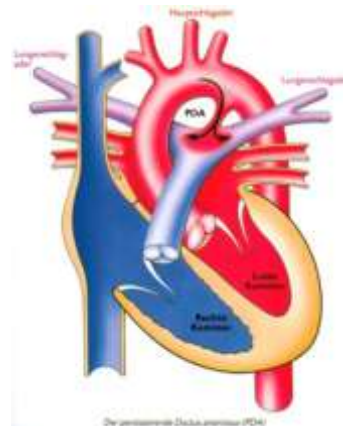
Malabsorption
 Crohn's disease and ulcerative colitis
 Cirrhosis, especially in primary biliary cirrhosis
 Hepatopulmonary syndrome, a complication of cirrhosis¹
 Laxative abuse
 Polyposis
 Esophageal CA

Others (rare):

Hyperthyroidism
 Familial and racial clubbing and "pseudoclubbing"
 Vascular anomalies of the affected arm such as an axillary artery aneurysm (in unilateral clubbing)
 Thymoma
 Thalassemia

(nur) Trommelschlegelzehen !

Differential Clubbing and Cyanosis



NEJM 2011;364:666

Pericardial Disease

Risk of Constrictive Pericarditis After Acute Pericarditis

Massimo Imazio, MD; Antonio Brucato, MD; Silvia Maestroni, MD; Davide Cumetti, MD;
Riccardo Belli, MD; Rita Trincherò, MD; Yehuda Adler, MD

Background—Constrictive pericarditis (CP) is considered a rare, dreaded possible complication of acute pericarditis. Nevertheless, there is a lack of prospective studies that have evaluated the specific risk according to different etiologies. The aim of this study is to evaluate the risk of CP after acute pericarditis in a prospective cohort study with long-term follow-up. Follow up 72 months

Erkrankung	% von 500 Fällen mit Peri(myo)karditis	davon in	davon 1,8 % P. constrictiva
a. viral/idiopathisch	83	davon in	0,5 %
b. Connective tissue d.	7,2		2,8
c. Neoplastisch	5		4,0
d. Tuberkulose	4		20
e. Eitrig	0,6		33,3

Circulation. 2011;124:1270-1275

Interventional Cardiology

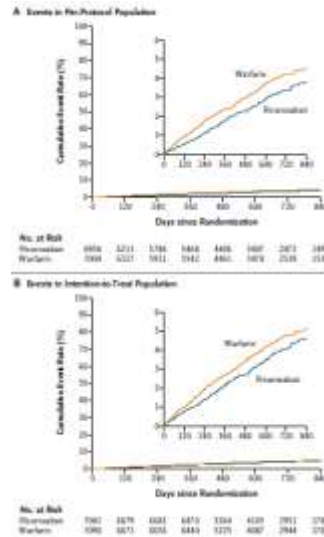
Acetylcysteine for Prevention of Renal Outcomes in Patients Undergoing Coronary and Peripheral Vascular Angiography Main Results From the Randomized Acetylcysteine for Contrast-Induced Nephropathy Trial (ACT)

Outcomes	Acetylcysteine	Placebo	Relative Risk (95% CI)	P
Primary end point, No. of events/total No. (%)				
Contrast-induced acute kidney injury	147/1153 (12.7)	142/1119 (12.7)	1.00 (0.81–1.25)	0.97
Other end points, No. of events/total No. (%)				
End points in 48 to 96 h				
Doubling in serum creatinine	13/1153 (1.1)	17/1119 (1.5)	0.74 (0.36–1.52)	0.41
Elevation $\geq 44.2 \mu\text{mol/L}$ (0.5 mg/dL) in serum creatinine	45/1153 (3.9)	42/1119 (3.8)	1.04 (0.69–1.57)	0.85
Elevation $\geq 13.3 \mu\text{mol/L}$ (0.3 mg/dL) in serum creatinine	140/1153 (12.1)	123/1119 (11.0)	1.10 (0.88–1.38)	0.39
End points at 30 d				
Deaths or need for dialysis*	26/1171 (2.2)	26/1135 (2.3)	0.97 (0.56–1.69)	0.92
Death, need for dialysis, or doubling in serum creatinine	38/1171 (3.2)	41/1135 (3.6)	0.90 (0.58–1.39)	0.63
Deaths*	23/1171 (2.0)	24/1135 (2.1)	0.97 (0.54–1.73)	0.92
Need for dialysis*	3/1171 (0.3)	3/1135 (0.3)	0.87 (0.17–4.35)	0.06
Cardiovascular deaths*	18/1171 (1.5)	18/1135 (1.6)	0.99 (0.51–1.90)	0.97

Circulation. 2011;124:1250

Rivaroxaban versus Warfarin in Nonvalvular Atrial Fibrillation

Patel et al., N Engl J Med 2011;365:883-91

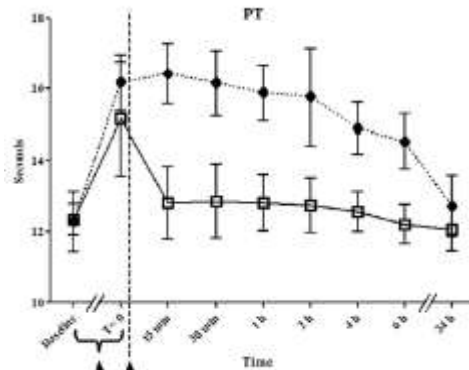


Wofür ist der Xa-Inhibitor Rivaroxaban zugelassen?

- zur Prophylaxe venöser Thromboembolien
- zur Rezidivprophylaxe von VTE/LE
- zur Therapie der akuten VTE
- zur Schlaganfalls/Embolieprophylaxe bei VF

Reversal of Rivaroxaban and Dabigatran by Prothrombin Complex Concentrate

A Randomized, Placebo-Controlled, Crossover Study in Healthy Subjects

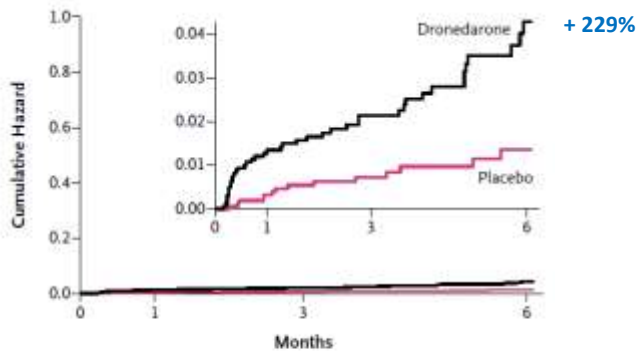


Rivarox 20 mg for 2.5 days PCC or placebo infusion

Eerenberg et al., Circulation. 2011;124:1573

Dronedarone in High-Risk Permanent Atrial Fibrillation

Conolly et al., NEJM 2011; 365: 2268



No. at Risk				
Placebo	1617	1445	908	377
Dronedarone	1619	1421	930	353

Figure 1. Risk of the First Coprimary Outcome (Stroke, Myocardial Infarction, Systemic Embolism, or Death from Cardiovascular Causes).

Welche Patienten sollten kein Dronedaron (Multaq®) bekommen?

Permanentes Vorhofflimmern und

- KHK
- Nach Schlaganfall oder TIA
- Herzinsuffizienz II – IV
- EF <40%
- >75 Jahre
- Hypertonie
- Diabetes mellitus

„our data show that dronedarone is hazardous in such patients“

Conolly et al., NEJM 2011; 365: 2268

BMJ 2011;343:d7679 doi: 10.1136/bmj.d7679 (Published 15 December 2011)

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RESEARCH

CHRISTMAS 2011: DEATH'S DOMINION

How fast does the Grim Reaper walk? Receiver operating characteristics curve analysis in healthy men aged 70 and over



The Grim Reaper is collecting souls irrespective of people's geographical location, sex, or ethnic background

Main outcome measures Walking speed (m/s) and mortality

Participants 1705 men aged 70 or more participating in CHAMP (Concord Health and Ageing in Men Project)

Survival analysis showed that older men who walked faster than 0.82 m/s were 1.23 times less likely to die (95% confidence interval 1.10 to 1.37) than those who walked slower ($p=0.0003$). No men with walking speeds of 1.36 m/s or greater had contact with Death.

Conclusion The Grim Reaper's preferred walking speed is 0.82 m/s (about 3 km per hour) under working conditions. As **none of the men in the study with walking speeds of 1.36 m/s** (3 miles (about 5 km) per hour) or greater had contact with Death, this seems to be the Grim Reaper's most likely maximum speed; for those wishing to avoid their allotted fate, **this would be the advised walking speed.**

(BMJ 2011;343: 7679)

Friedrich II (24. 1. 1712 – 17. 8. 1786)



Die preußische Marschgeschwindigkeit lag bei 5,5 – 6 Km/Std. !



**Ich wünsche Ihnen, daß Sie auch im Preußenjahr 2012 stets schneller
als 5 Km/Std. laufen können und hoffe, daß Sie liberal bleiben!**

