

Epidemiologie versus Klinik



Christoph Säly

Abteilung für Innere Medizin I, LKH Feldkirch

VIVIT Institut, Feldkirch, A

Private Universität im Fürstentum Liechtenstein, Triesen, FL

Epidemiologie *versus* Klinik?

Agenda

- **Beschreibung vs. Schlussfolgerung**
- **Assoziation vs. Kausalität**
- **Intervention vs. Population**

Agenda

- **Beschreibung vs. Schlussfolgerung**
- **Assoziation vs. Kausalität**
- **Intervention vs. Population**

Beispiel: Beschreibung

ORIGINAL ARTICLE

Diabetes care among older adults in primary care in Austria

Eva Mann, Alexander Vonbank, Heinz Drexel, Christoph H Saely

DOI: [10.4414/smwm.2012.13646](https://doi.org/10.4414/smwm.2012.13646)

Publication Date: 23.08.2012

Swiss Med Wkly. 2012;142:w13646

Mann E, Vonbank A, Drexel H, Saely CH. SMW 2012.

Vorarlberger Diabetes-Patienten ≥ 70 a; n = 203

- Medianer HbA1c 7.0%
- HbA1c $< 8.0\%$ bei 78%
- LDL-C < 70 mg/dl bei 13%
- GFR im letzten Jahr bestimmt bei 33%

Mann E, Vonbank A, Drexel H, Saely CH. SMW 2012.

Das Fettgewebshormon Omentin sagt kardiovaskuläre Ereignisse voraus

Atherosclerosis 244 (2016) 38–43



Contents lists available at ScienceDirect

Atherosclerosis

journal homepage: www.elsevier.com/locate/atherosclerosis



High plasma omentin predicts cardiovascular events independently from the presence and extent of angiographically determined atherosclerosis



Christoph H. Saely ^{a, b, c, 1}, Andreas Leiherer ^{b, c, d, 1}, Axel Muendlein ^{b, c},
Alexander Vonbank ^{a, b, c}, Philipp Rein ^{a, b, c}, Kathrin Geiger ^{b, c}, Cornelia Malin ^{a, b},
Heinz Drexel ^{a, b, c, e, *}

^a Department of Medicine and Cardiology, Academic Teaching Hospital Feldkirch, Feldkirch, Austria

^b Vorarlberg Institute for Vascular Investigation and Treatment (VIVIT), Feldkirch, Austria

^c Private University of the Principality of Liechtenstein, Triesen, Liechtenstein

^d Medical Central Laboratories, Feldkirch, Austria

^e Drexel University College of Medicine, Philadelphia, PA, USA

Saely CH et al. Atherosclerosis 2016; 244:38-43.

Das Fettgewebshormon Omentin sagt kardiovaskuläre Ereignisse voraus

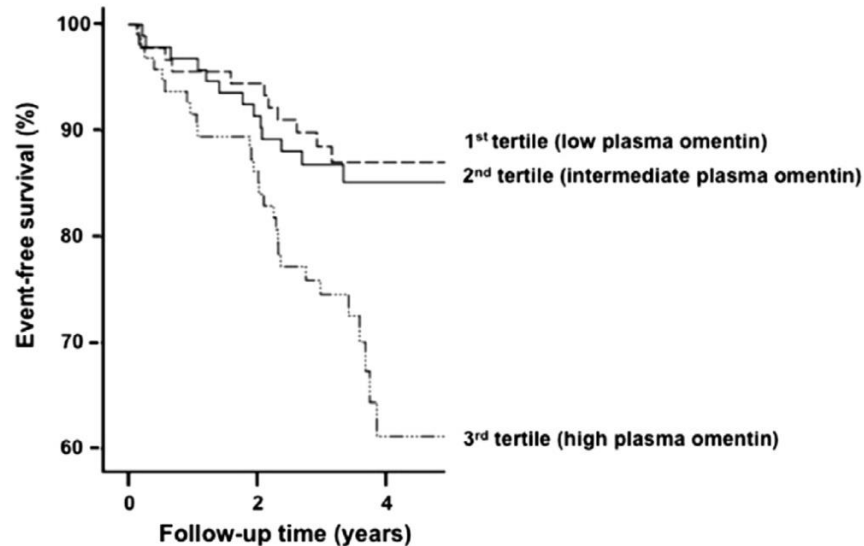


Fig. 1. Incidence of cardiovascular events by tertiles of omentin. The survival plot indicates event-free survival according to tertiles of omentin (Ptrend = 0.003) detected in patient plasma. Plasma omentin levels range from 4.0 ng/ml to 9.5 ng/ml, from 9.5 ng/ml to 108.3 ng/ml, respectively.

p = 0.003

Saely CH et al. Atherosclerosis 2016; 244:38-43.

Was bedeutet $p = 0.003$?

Cholesterin und Blutdruck bei Schweizer Rekruten

Original article

SWISS MED WKLY 2009;139(35-36):518-524 · www.smw.ch

518

Peer reviewed article

Body mass index, blood pressure, and serum cholesterol in young Swiss men: an analysis on 56784 army conscripts

Christoph H. Saely^a, Lorenz Risch^{a,b}, Franz Frey^b, Gianpiero A. Lupi^b, Joerg D. Leuppi^{b,c}, Heinz Drexel^a, Andreas R. Huber^{b,d}

^a Private University in the Principality of Liechtenstein, Triesen, Liechtenstein

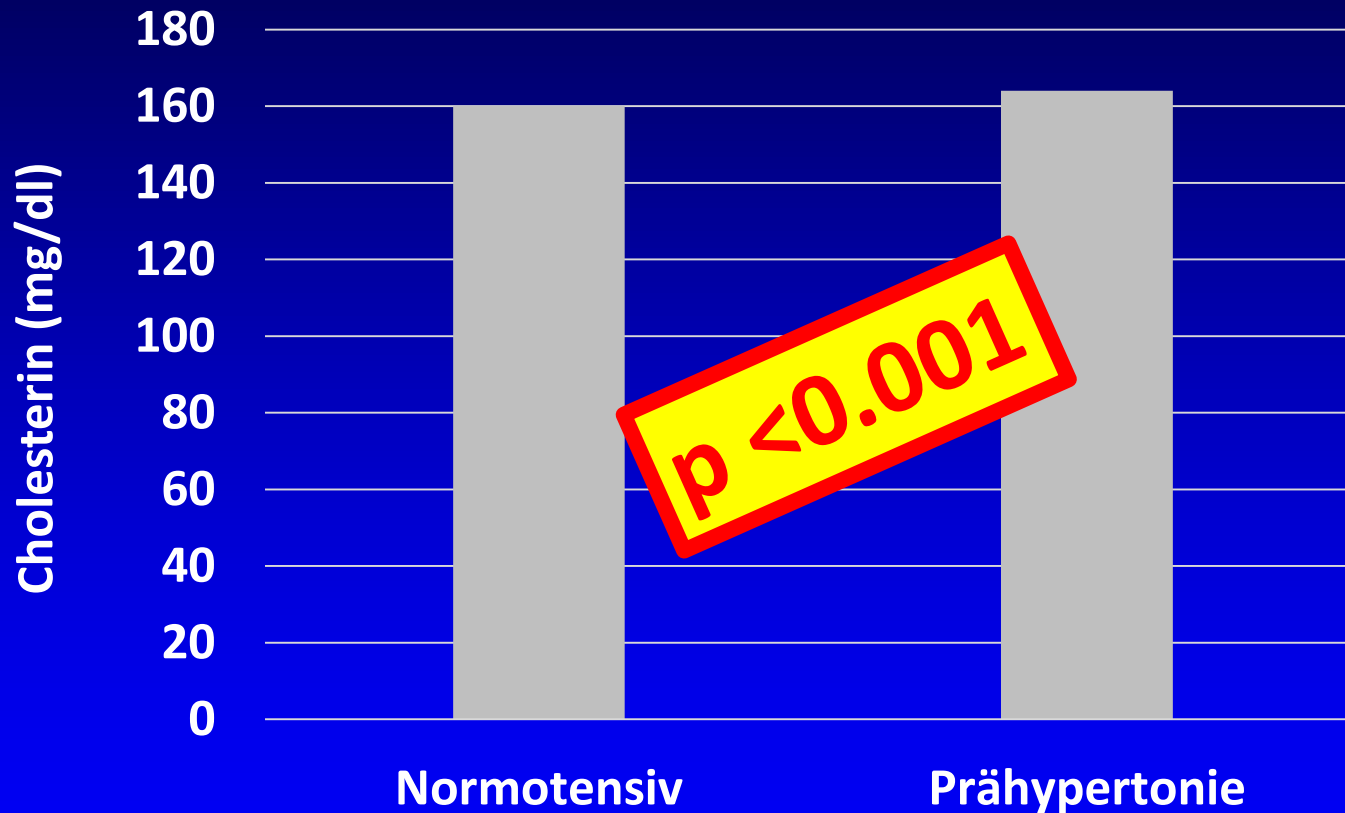
^b Swiss Armed Forces

^c Kantonsspital Basel, Basel, Switzerland

^d Kantonsspital Aarau, Aarau, Switzerland

Saely CH et al. Atherosclerosis 2016; 244:38-43.

Cholesterin und Blutdruck bei Schweizer Rekruten



Saely CH et al. Atherosclerosis 2016; 244:38-43.

Agenda

- Beschreibung vs. Schlussfolgerung
- **Assoziation vs. Kausalität**
- Intervention vs. Population

Das Fettgewebshormon Omentin sagt kardiovaskuläre Ereignisse voraus

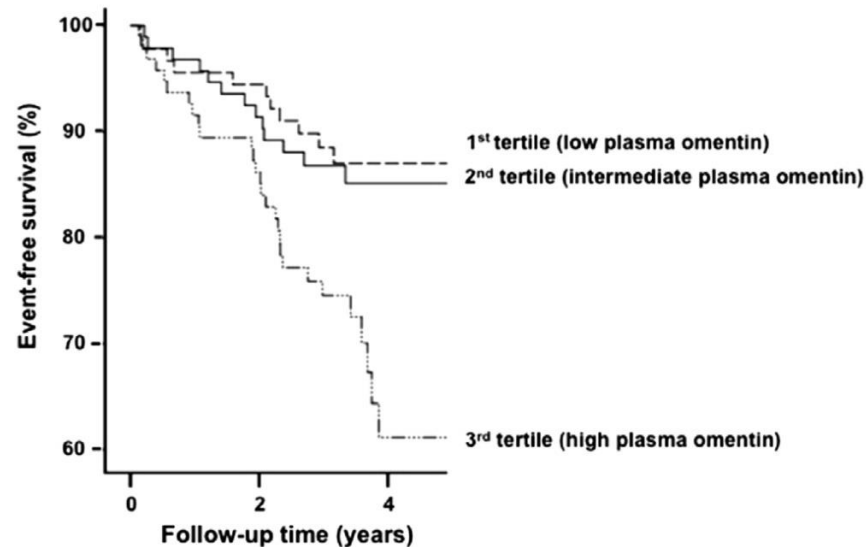


Fig. 1. Incidence of cardiovascular events by tertiles of omentin. The survival plot indicates event-free survival according to tertiles of omentin concentration ($P_{\text{trend}} = 0.003$) detected in patient plasma. Plasma omentin tertiles 1 through 3 range from 4.0 ng/ml to 9.5 ng/ml, from 9.5 ng/ml to 18.5 ng/ml, and from 18.5 ng/ml to 108.3 ng/ml, respectively.

Saely CH et al. Atherosclerosis 2016; 244:38-43.

Adjustierung

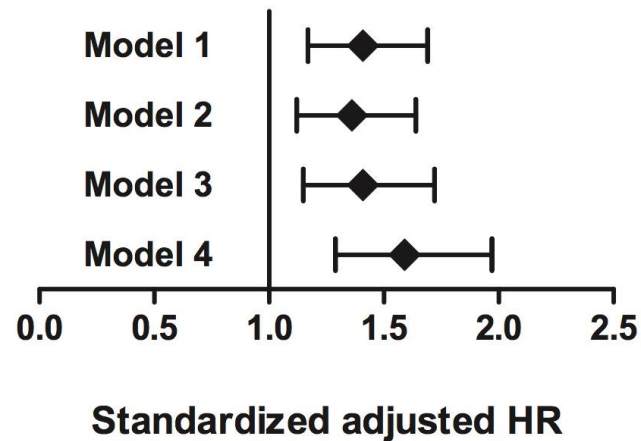


Fig. 2. Omentin as a predictor of cardiovascular event risk: Results from Cox regression analyses. Hazard ratios and 95% CI are for omentin as a continuous variable. Model 1 represents univariate analysis; model 2 includes the covariates age and gender; model 3 includes the covariates age, gender, BMI, type 2 diabetes mellitus, hypertension, smoking, LDL cholesterol, and HDL cholesterol; model 4 includes the parameters included in model 3 and in addition the presence and extent of CAD.

Erforschung von Mechanismen

Molecular and Cellular Endocrinology 383 (2014) 21–31



Contents lists available at [ScienceDirect](http://www.sciencedirect.com)

Molecular and Cellular Endocrinology

journal homepage: www.elsevier.com/locate/mce



Hypoxia induces a HIF-1 α dependent signaling cascade to make a complex metabolic switch in SGBS-adipocytes



Andreas Leiherer^{a,c,d}, Kathrin Geiger^{a,c}, Axel Muendlein^{a,c}, Heinz Drexel^{a,b,c,e,*}

^a Vorarlberg Institute for Vascular Investigation and Treatment (VIVIT), Feldkirch, Austria

^b Department of Medicine and Cardiology, Academic Teaching Hospital Feldkirch, Feldkirch, Austria

^c Private University of the Principality of Liechtenstein, Triesen, Liechtenstein

^d Medical Central Laboratories, Feldkirch, Austria

^e Drexel University College of Medicine, Philadelphia, USA

Leiherer A et al. Mol Cell Endocrinol 2014; 383: 21-31.

Genetische Untersuchungen

Atherosclerosis 242 (2015) 340–345



ELSEVIER

Contents lists available at ScienceDirect

Atherosclerosis

journal homepage: www.elsevier.com/locate/atherosclerosis



Common single nucleotide polymorphisms at the NPC1L1 gene locus significantly predict cardiovascular risk in coronary patients



Axel Muendlein^{a, b, 1}, Andreas Leiherer^{a, b, d, 1}, Christoph H. Saely^{a, b, c}, Philipp Rein^{a, c}, Daniela Zanolin^{a, b}, Elena Kinz^{a, b}, Eva-Maria Brandtner^a, Peter Fraunberger^d, Heinz Drexel^{a, b, c, e, *}

^a Vorarlberg Institute for Vascular Investigation and Treatment (VIVIT), Feldkirch, Austria

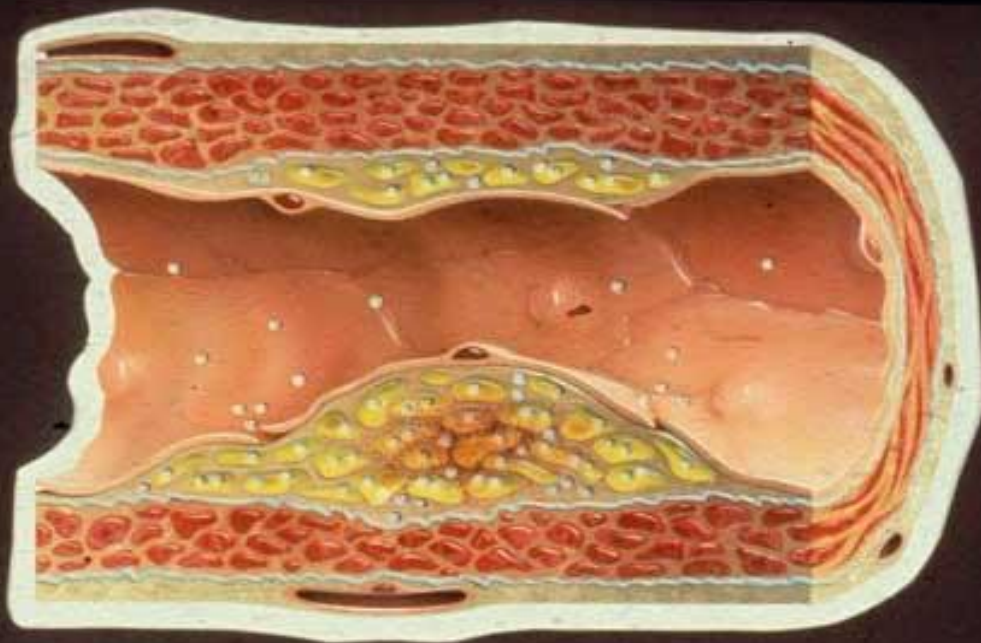
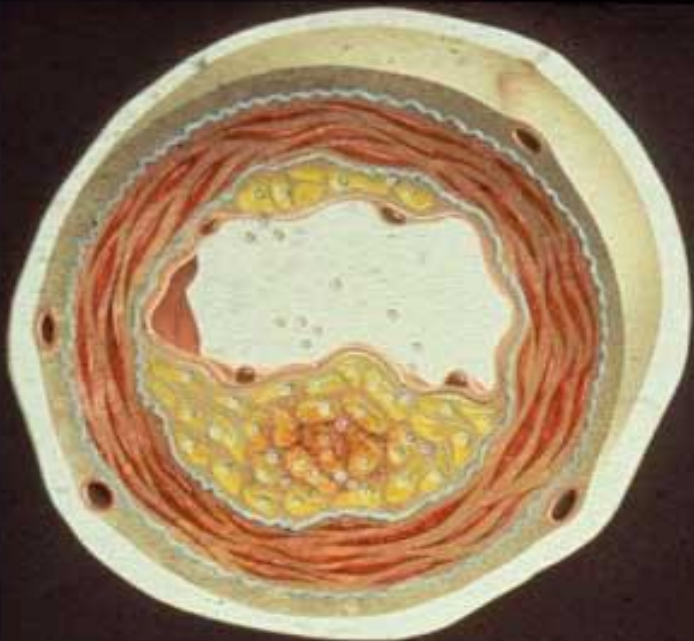
^b Private University of the Principality of Liechtenstein, Triesen, Liechtenstein

^c Department of Medicine and Cardiology, Academic Teaching Hospital Feldkirch, Feldkirch, Austria

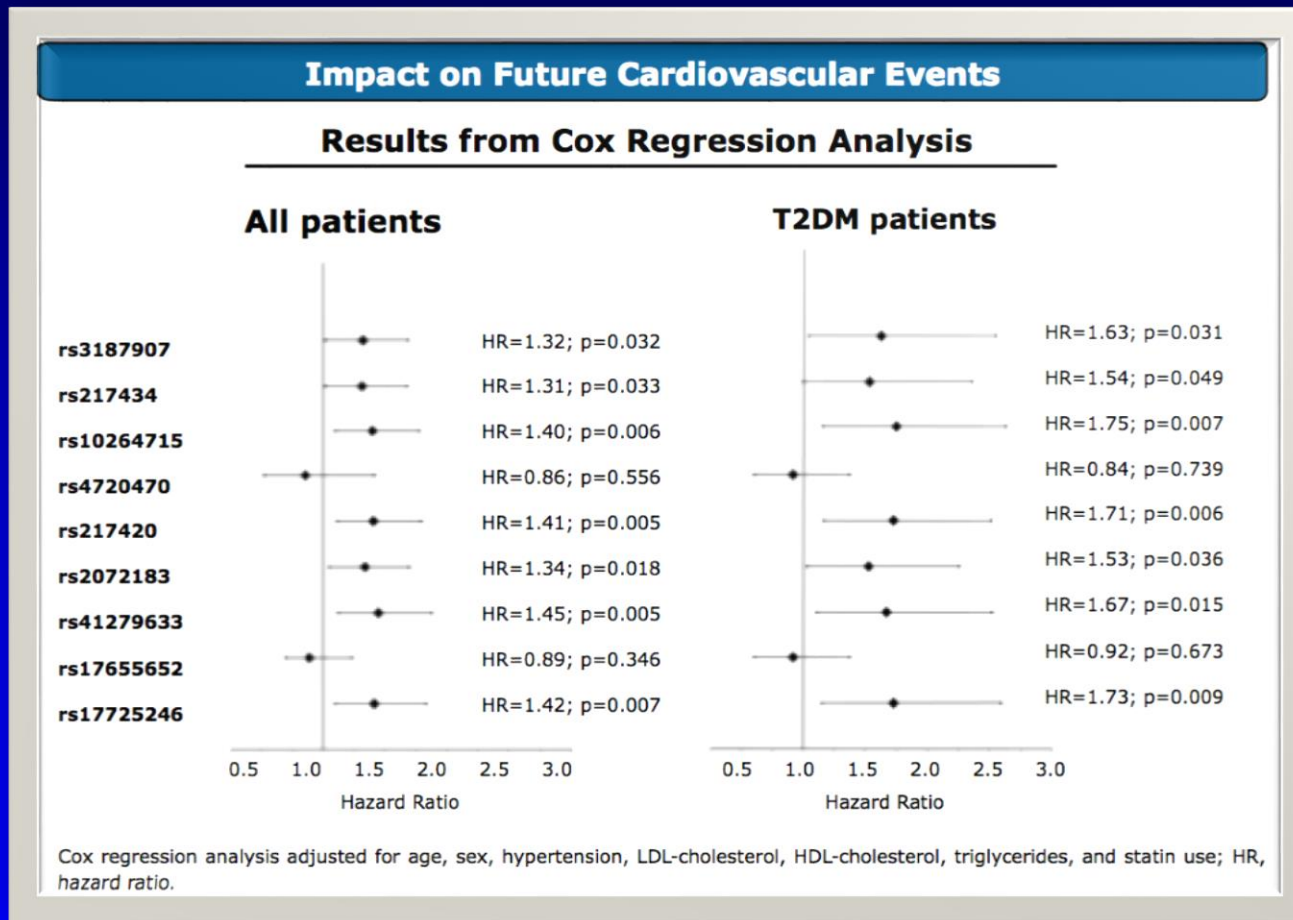
^d Medical Central Laboratories, Feldkirch, Austria

^e Drexel University College of Medicine, Philadelphia, PA, USA

Muendlein A et al. Atherosclerosis 2015;242:340-5.

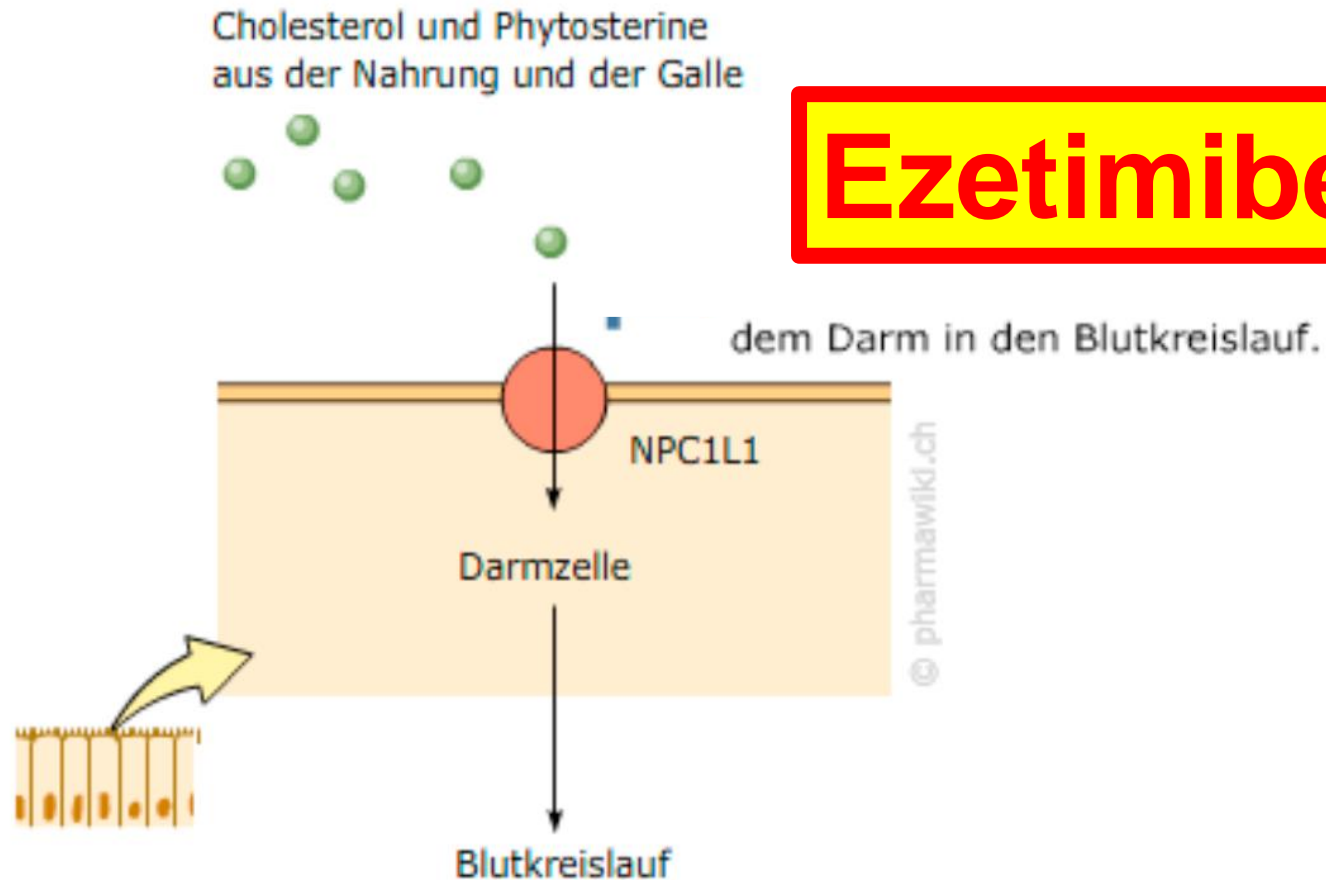


NPC1L1 Polymorphismen und Kardiovaskuläres Risiko

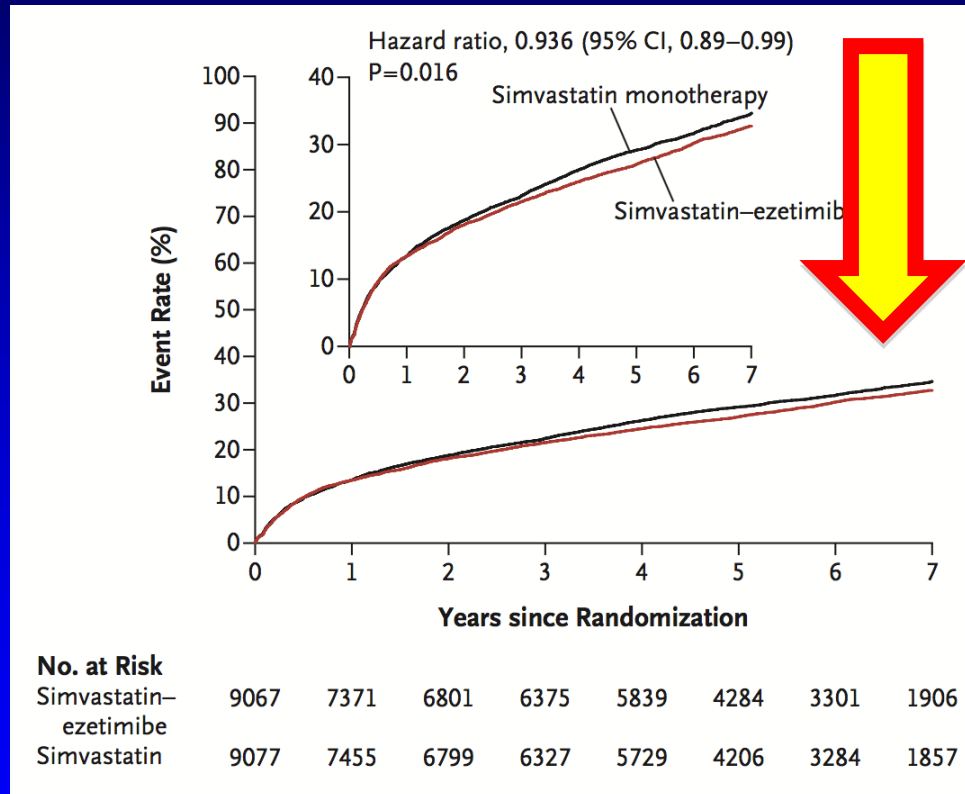


*Muendlein A et al. Atherosclerosis 2015;242:340-5.
Muendlein A et al. Diabetes 2015; 64 (Suppl 1): A12*

Funktion von NPC1L1



Ezetimibe verhindert kardiovaskuläre Ereignisse: Die IMPROVE-IT Studie

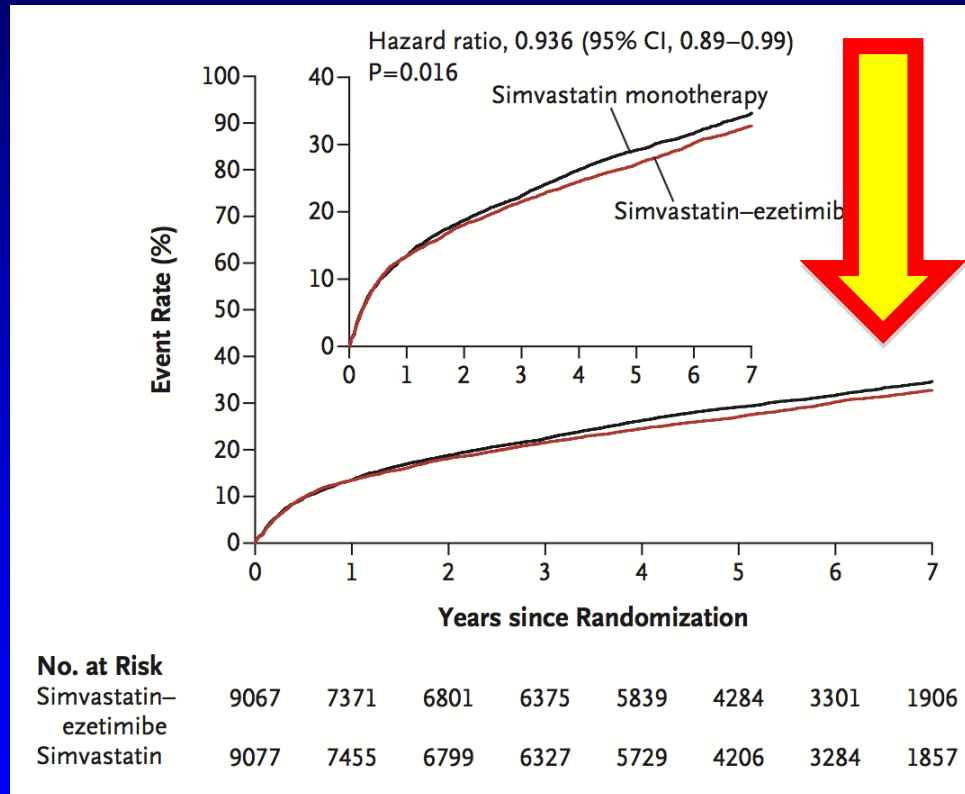


Cannon CP et al. N Engl J Med 372:2387-97.

Agenda

- Beschreibung vs. Schlussfolgerung
- Assoziation vs. Kausalität
- **Intervention vs. Population**

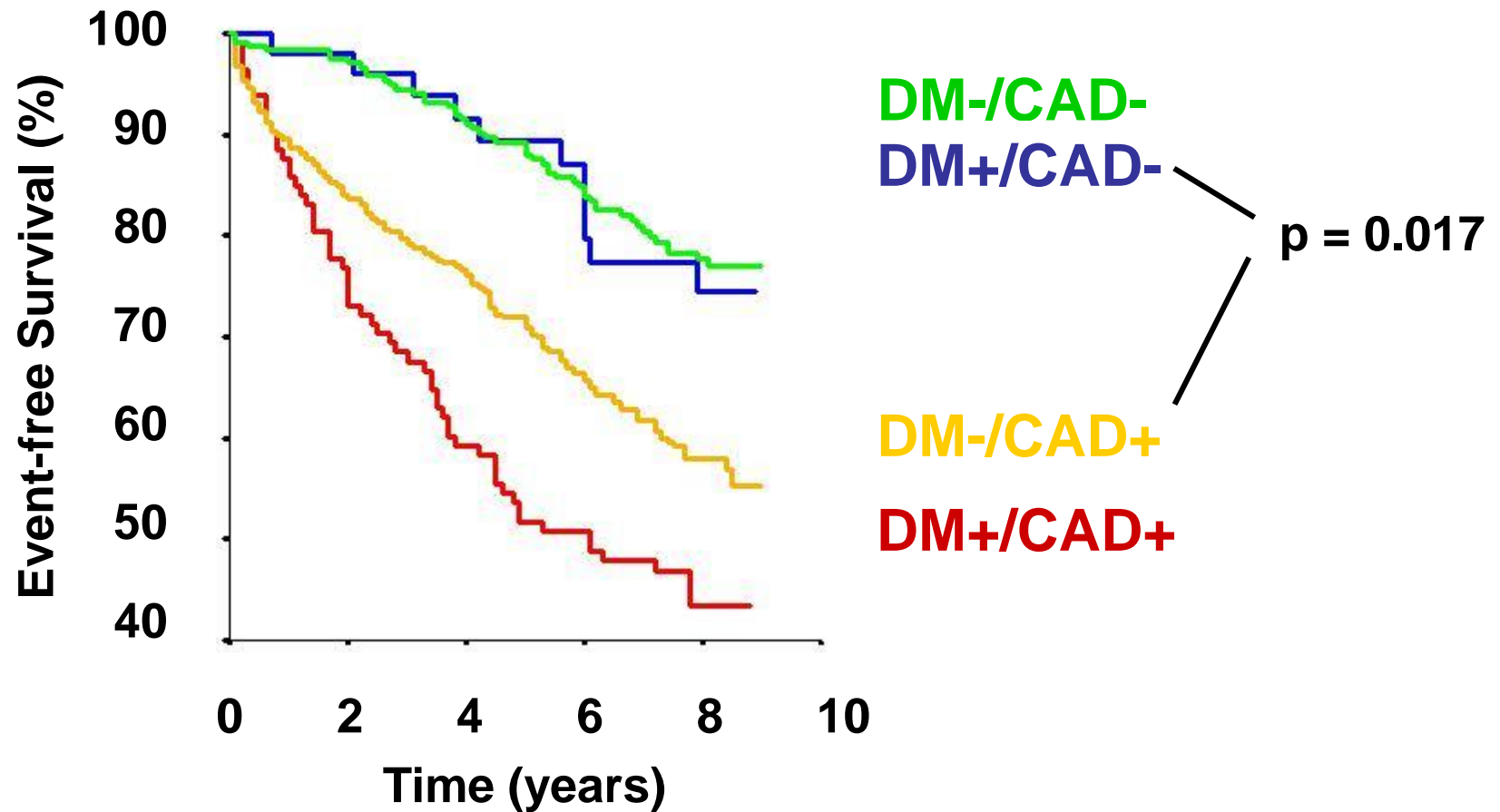
Ezetimibe verhindert kardiovaskuläre Ereignisse: Die IMPROVE-IT Studie



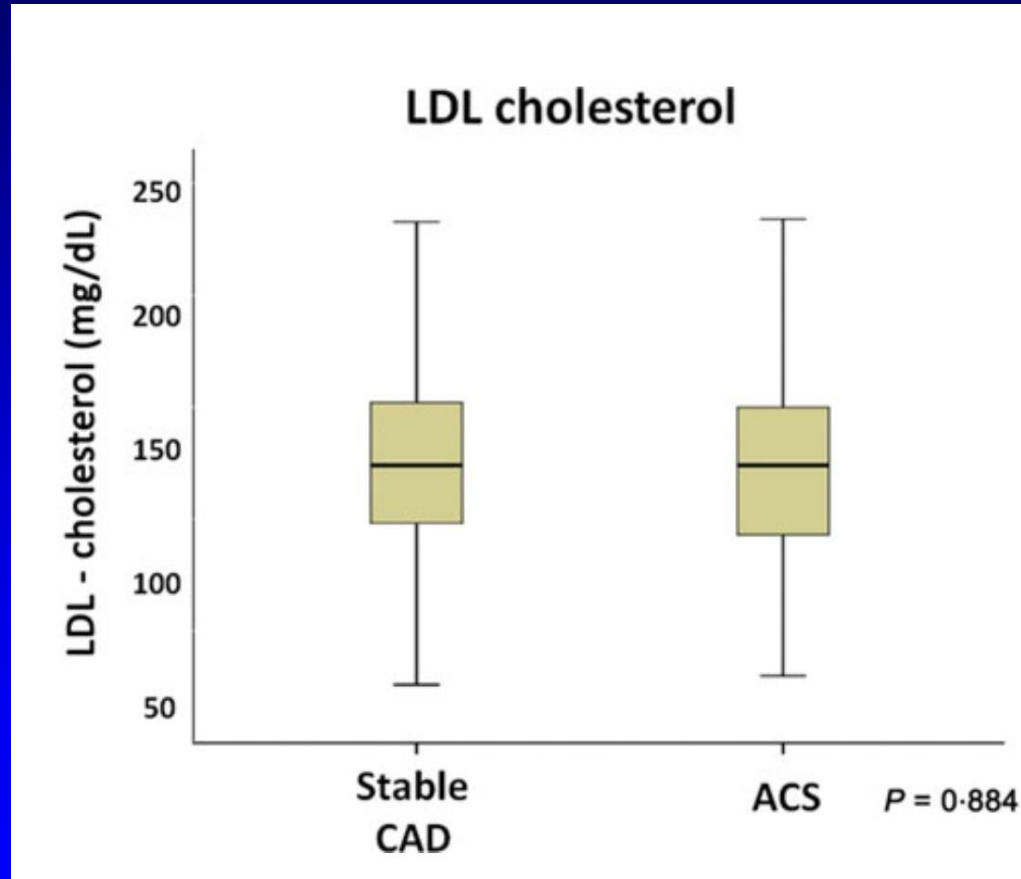
RRR -7%
ARR 2%
NNT 50

Cannon CP et al. N Engl J Med 372:2387-97.

Diabetes plus KHK: Höchststrisiko



LDL-C bei KHK Patienten in Vorarlberg



Vonbank A et al. Eur J Clin Invest 2015; 45:102-7.

Entscheidend: Statin-Adhärenz



European Heart Journal (2017) **00**, 1–7
doi:10.1093/eurheartj/ehw628

CURRENT OPINION

Comprehensive efforts to increase adherence to statin therapy

**Alexander Vonbank^{1,2}, Stefan Agewall³, Keld Per Kjeldsen^{4,5}, Basil S. Lewis⁶,
Christian Torp-Pedersen⁷, Claudio Ceconi⁸, Christian Funck-Brentano⁹,
Juan Carlos Kaski¹⁰, Alexander Niessner¹¹, Juan Tamargo¹², Thomas Walther^{13,14},
Sven Wassmann¹⁵, Giuseppe Rosano¹⁶, Harald Schmidt¹⁷, Christoph H. Saely^{1,2},
and Heinz Drexel^{1,2,18*}**

Vonbank A et al. Eur Heart J 2017 (in press)

Dr. scient. med. Programm an der UFL



www.ufl.li; info@ufl.li

Epidemiologie versus Klinik



Danke für die Aufmerksamkeit!

Christoph Säly

Abteilung für Innere Medizin I, LKH Feldkirch

VIVIT Institut, Feldkirch, A

Private Universität im Fürstentum Liechtenstein, Triesen, FL

