

(27%), chest pain (43%), fever (90%) and led to diagnostic mistakes in 30% pts. PC of IE included pneumonia in 72%, pleuritis in 33%, hydrothorax in 19%, lung abscess in 15%, pneumothorax in 6% pts. Pulmonary insufficiency was in 67% pts. Destructive pneumonias developed in 52% pts and in the most cases were caused by *S. aureus*. Bilateral location of infiltrates was noted 80% pts with PC. Pleuropulmonary manifestations were noted more frequently when right sides of the heart were affected. Blood cultures were positive in 72% episodes of IE. Vegetations were found on transthoracic echocardiography (Echo) in 93% pts with PC, tricuspid valve was affected in 89% pts. PC in right-sided and left-sided IE: pneumonia 81% vs. 60%, pleuritis 27% vs. 8%, hydrothorax 17% vs. 6%, lung edema 7% vs. 11%, lung abscess 29% vs. 0%, pneumothorax 6% vs. 0%. PC were associated with chronic viral hepatitis B - 19% and C - 40%, HIV infection - 37%. Eradication of staphylococci with vancomycin, daptomycin, tigecycline or ceftaroline was obtained in 85% of IE pts with replacing heart valves in 70%. Mortality at discharge was 25%, at 6 months 35%. On morphological examination there were revealed inflammatory foci with microabscess formation and hemorrhagic infarcts in the lung tissue.

Conclusions: The existence of pulmonary embolism simulating pneumonia was the first clue to diagnosis of IE in IDU. Echo detected the vegetations on tricuspid valve and confirmed the diagnosis. The knowledge of the clinical picture of modern IE in intravenous drug users is important for early diagnostics and treatment.

DIABETES, OBESITY AND METABOLIC SYNDROME

P4473

Baseline insulin levels are associated with need for revascularization among diabetic patients with high risk vascular disease: insights from the ACCELERATE trial

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Background: Despite optimal treatment, Type II diabetes mellitus (T2DM) remains associated with increased risk for future cardiovascular events. We sought to determine the association between baseline plasma insulin levels (BPIL) and major adverse cardiovascular outcomes (MACE) in patients with T2DM and high-risk vascular disease enrolled in the ACCELERATE trial.

Methods: We included all patients with T2DM who had a central laboratory measured BPIL drawn as part of the study protocol. A Cox proportional hazards model generated hazard ratios (HR) for the risk of endpoint (composite of cardiovascular death, non-fatal myocardial infarction, stroke, hospitalization for unstable angina, and revascularization) with increasing quartile of BPIL. We then performed a multivariable regression adjusting for significant characteristics.

Results: Amongst 12,092 patients in ACCELERATE, 2,045 patients with T2DM had a BPIL drawn. Median follow-up was 28 months. The average age was 66.6 years, was 79.2% male, and 96.2% had known coronary artery disease. At baseline, 85% of patients were taking an aspirin, 95% a statin, 79% an angiotensin-converting enzyme inhibitor or angiotensin-receptor II antagonist, and 75% a β -blocker. Baseline LDL-C was 80.6 mg/dL and HDL-C was 44.6 mg/dL. During follow-up, MACE occurred in 238 patients (11.6%); of these events, 177 were revascularization (8.7%). The HR for increasing quartile of BPIL was borderline significant for MACE (HR 1.11, 95% CI 0.99–1.25, p-value = 0.07) and was driven by need for revascularization (HR 1.18, 95% CI 1.03–1.35, p-value = 0.02, Figure 1). Patients who underwent revascularization had significantly higher BPIL (27.7 vs. 21.4 mU/L, p-value = 0.009) and were more likely to be younger (65.2 vs. 66.7 years, p-value = 0.020), current smokers (16.9% vs. 12.0%, p-value = 0.059), have undergone prior percutaneous coronary intervention (83.6% vs. 73.5%, p-value = 0.004), and have a higher LDL-C (83.9 vs. 80.3 mg/dL, p-value = 0.029). Baseline hemoglobin A1c (6.6% vs. 6.6%), body mass index (31.5 vs. 31.1), baseline medical therapy and remainder of characteristics were otherwise similar. Multivariable regression adjusting for significant characteristics and receipt of evacetrapib noted log of BPIL to be an independent predictor for revascularization (HR 1.42, 95% CI 1.15–1.75, p-value = 0.001).

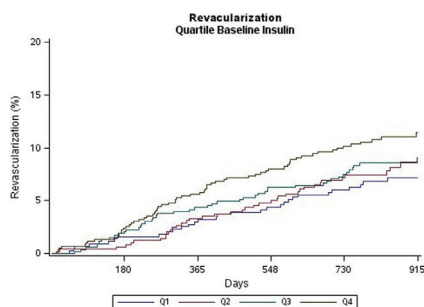


Figure 1

Conclusions: In a contemporary population of patients with well-controlled T2DM and high risk vascular disease on optimum medical therapy, baseline

plasma insulin level was an independent predictor for need of future revascularization.

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P4474

Regional differences in the incidence of acute coronary syndrome and ischemic stroke in diabetic populations reflect differences in the quality of diabetes care

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Background: Diabetic patients have two-fold excess risk of cardiovascular complications (CVCs). Although the prevalence of diabetes is increasing, the incidence of CVCs is decreasing in many countries.

Purpose: To compare the outcomes of diabetic care we compared the incidence of CVCs between the five university hospital districts (UHDs) in Finland.

Methods: The study population comprised all persons with diabetes in Finland since 1964. They were followed up for the incidence of first acute coronary syndrome (ACS) and first ischemic stroke (IS) using the National Hospital Discharge Register and the National Causes of Death Register data between the years 2000 and 2011. Incidence differences among diabetic patients were also compared with corresponding results in the total population. The main analysis tool was Poisson regression adjusted for age, sex and study year. The UHD of Helsinki was used as the reference category.

Results: The rate of diabetic ACSs and ISs in the total population of Finland declined during the study period but major differences between the UHDs remained (Fig). The risk for the first ACS exceeded the reference UHD significantly in three out of the four other districts. Also, the risk for the first IS exceeded the reference in two districts. These differences were similar to the corresponding figures in the total population (Table 1).

Table 1. Age-adjusted risk ratios (with 95% confidence intervals, CI) for the first acute coronary syndrome (ACS) and first ischemic stroke (IS) in 2000–2011 in the diabetic population and total population of Finland

University hospital district	Diabetic population		Total population	
	ACS	IS	ACS	IS
	Risk ratio (95% CI)	Risk ratio (95% CI)	Risk ratio (95% CI)	Risk ratio (95% CI)
Helsinki	1.00	1.00	1.00	1.00
Kuopio	1.51 (1.29, 1.76)	1.36 (1.18, 1.56)	1.24 (1.23–1.26)	1.18 (1.17–1.20)
Oulu	1.70 (1.46, 1.97)	1.35 (1.18, 1.53)	1.30 (1.29–1.32)	1.22 (1.20–1.24)
Tampere	1.17 (1.01, 1.34)	1.12 (0.99, 1.26)	1.07 (1.06–1.08)	1.10 (1.09–1.12)
Turku	1.03 (0.89, 1.19)	1.01 (0.89, 1.15)	1.01 (1.00–1.03)	1.04 (1.02–1.06)

Adjusted for age, gender and year.

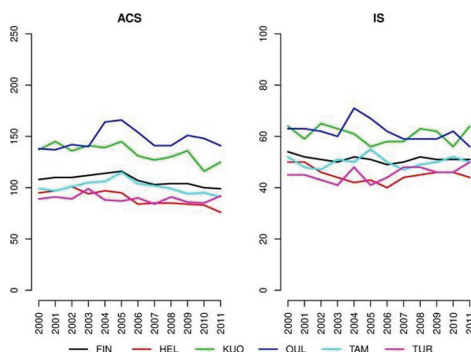


Figure 1

Conclusions: We found major and stable differences in the incidence of ACS and IS between the UHDs among diabetic patients. The differences result from several factors influencing the risk of these complications, including treatment. These differences tended to be larger than the corresponding differences in total population, which suggests that there is potential to prevent CVCs by improving the quality of diabetes care particularly in certain regions of the country.

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P4475

Glycated haemoglobin and risk of all-cause, causal mortality and cardiovascular hospitalisation in type 2 diabetes mellitus according to body mass index

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Introduction: The percentage of haemoglobin that is glycated (% HbA1c) is rou-