MBG was determined in a blinded core laboratory. VA bursts were identified against subject-specific background VA rates using a previously published statistical outlier method in a blinded electrocardiography core laboratory. Delayed-enhancement cardiac magnetic resonance imaging (DE-CMR) was used to determine IS (median 202 days) by an independent core laboratory.

**Results:** No significant differences were found for demographic characteristics, comorbidities, infarct location, number of diseased coronary vessels, or duration of ischemia between groups with MBG 3 and MBG 2. VA bursts were present in 140 patients. In patients with optimal epicardial and microvascular reperfusion (TIMI 3, IFR ≥ 2.0), VA burst was associated with larger IS (N=120/144; median 11.6% vs 5.1%; p<0.001).

**Conclusion:** In the presence of optimal epicardial and microvascular recanalization, VA bursts are associated with larger IS. VA bursts are a marker of myocardial injury, possibly due to the reperfusion process.

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**1950 | BEDSIDE**

**Local delivery of thrombolytics before thrombectomy in patients with ST-elevation myocardial infarction undergoing primary percutaneous coronary intervention - the disolution randomized trial**

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**Background:** Prompt reperfusion with Percutaneous Coronary Intervention (PCI) in ST-Elevation Myocardial Infarction (STEMI) improves clinical outcomes through salvage of myocardial tissue. Although use of thrombus aspiration with PCI can improve TIMI frame count and myocardial perfusion, severe unmet need remains.

The purpose of this trial was to evaluate the hypothesis that local delivery of low-dose thrombolytics can enhance the efficacy of thrombus aspiration in STEMI patients undergoing primary PCI.

**Methods:** A total of 102 patients with STEMI and angiographic evidence of totally occlusive thrombus in the culprit artery were randomly assigned to receive local bolus of 200,000 units urokinase (N=51) or saline solution (N=51) followed by manual aspiration thrombectomy (PromoTm, Vascular Solutions, Inc., Minneapo- lis, Minnesota) and PCI. Both groups received abciximab (i.v. bolus + 12-h infusion). End points included final thrombolysis in myocardial infarction (TIMI) flow grade, frame count, and thrombus grade, myocardial blush grade (MBG; 0, 60- min ST-segment resolution (STR) >70%, and 6-month clinical outcomes. All pa- tients had echocardiography at 6-month and left ventricular ejection fraction (EF) and wall motion score (WMS) were obtained.

**Results:** Baseline clinical and angiographic characteristics of both groups were similar. Local urokinase was associated with post-PCI evidence of higher TIMI flow grade 3 (86% vs. 68%; p=0.027), lower TIMI frame count (18±11 vs 25±13; p=0.045) and fewer TIMI thrombus grade ≥ 20% (20% ± 52%; p=0.039). Histopatho- logic evaluation performed in 11 Gr.A and 11 Gr.B patients showed that aspirated thrombi after urokinase were smaller, softer and less organized than after saline. Post-PCI myocardial perfusion was slightly increased with urokinase (MBG 2/3: 88% vs. 64%; p=0.09), with significantly more patients showing STR>70% (80% vs 56%; p=0.001). No differences between the two groups were subse- quently observed in clinical outcomes and EF. Despite 6-month WMS was signifi- cantly lower in patients receiving local urokinase than saline (1.21±0.29 vs 1.45±0.32; p=0.008).

**Conclusion:** Local delivery of low-dose thrombolytics before thrombectomy in STEMI patients undergoing primary PCI is associated with improved coronary flow, myocardial perfusion, and 6-month regional myocardial function. Delivery of low-dose thrombolytics agents directly to the site of thrombus might be an effective strategy to enhance efficacy of thrombus aspiration in primary PCI. ClinicalTrials.gov identifier: NCT01568931.

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**1964 | BEDSIDE**

**Dairy products are differently related to plasma lipids and cardiovascular risk, depending on their fat content**

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**Purpose:** Fat content of dairy foods is diverse, potentially leading to varying ef- fects on cardiovascular risk. We studied relationships of low- and high-fat dairy products with lipids and level of cardiovascular risk, in a cross-sectional popula- tion survey conducted in three French areas.

**Methods:** A sample of 3078 participants aged 35-64 years, was randomly se- lected in 2005-2007 by drawing on polling lists. Participants underwent a standard cardiovascular risk assessment and were asked to prospectively record the types and amounts of foods and beverages they consumed over a three- consecutive day period. All records were checked by a dietician. Dairy products were separated into two groups: the low-fat group comprised milk (including milk from desserts and beverages), yogurts and cottage cheese, whereas other cheeses formed the high-fat group. The SCORE algorithm was used to assess 10-year risk of cardiovascular mortality.

**Results:** The sample included 5015 of men and women with a median age of 50.4 years. The median levels of lipids were 5.67 mmol/l (total cholesterol), 3.56 mmol/l (LDL-cholesterol), 1.42 mmol/l (HDL-cholesterol) and 1.12 mmol/l (triglyc- erides). For 3% of the sample the had a 10-year risk of cardiovascular mortality ≤ 2%. After adjustment (including level of education, physical activity and a diet quality score), the probability of an increased 10-year risk of cardiovascular events (SCORE ≥ 2%) decreased from the bottom fourth to the top fourth quartile (Q) of low-fat dairy product intake: ORQ1 (odds ratio)=1; ORQ2=0.74 [95% confidence interval: 0.60-0.91); ORQ3=0.65 [0.52-0.80] and ORQ4=0.58 [0.47-0.72] for the first, second, third and fourth quartile, respectively. Results were notably different for high-fat dairy product intake: ORQ2=1.04 [0.84-1.28]; ORQ3=0.96 [0.78-1.19]; ORQ4=1.23 [1.00-1.52]. Intake of low-fat dairy products was inversely associated with low LDL-cholesterol, but no significant relationship was found with HDL-cholesterol or triglycerides. None of the lipid parameters was significantly associated with the consumption of high-fat dairy products.

**Conclusions:** Participants with the highest intake of low-fat dairy products were at the lowest risk of cardiovascular mortality, as assessed by the SCORE equa- tion, and they exhibited the best LDL-cholesterol profile. Despite extensive ad- justment, this observation may still be related to differences in lifestyle habits. No significant association was observed between cardiovascular risk and high-fat dairy products.

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**1965 | BEDSIDE**

**Refining long-term prediction of cardiovascular risk in diabetes**

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** Aim:** Cardiovascular risk assessment in patients with diabetes relies on tradi- tional cardiovascular risk factors. However, numerous novel biomarkers have

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**MANY RISK FACTORS – ONLY ONE SOLUTION: PREVENTION!**

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**1963 | BENCH**

**Interval versus continuous exercise training in coronary artery disease: a meta-analysis**

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**Introduction:** Exercise training improves aerobic exercise capacity (peak VO2), which is related to long-term survival in cardiac patients. However, it remains unclear which type (mode) and volume (dose x duration) of exercise are the most effective for improving peak VO2 and other cardiovascular risk factors. Several studies have shown that Aerobic Interval Training (AIT) effectively increases peak VO2 in this population. Therefore, we conducted a meta-analysis to summarize the effects of AIT compared to Moderate Continuous Training (MCT) in patients with coronary artery disease (CAD) with and without ischemic heart failure (IHF).

**Methods:** A comprehensive literature search was conducted wherein we included randomized trials comparing an AIT and MCT intervention in CAD patients, providing peak VO2 results and published in a peer-reviewed journal up to November 2012. Primary outcome measure was peak VO2 before and after the exercise interven-