events were compared between two groups, and independent predictors of prognosis were also identified.

Results: Compared with patients in control group, those in IAS group had higher ratio of hypertension (P<0.05). During follow-up (mean 52±12 months), 42 cases of end point events were recorded, including 20 major adverse cardiac events (MACE). The rate of MACE (IAS group vs control group, 18.4% vs 3.6%, RR=5.03, 95% CI 1.94-13.41, P<0.001) and end point events (33.3% vs 11.7%, RR=3.79, 95% CI 1.82-7.82, P<0.001) were significantly higher in IAS group. Multivariate Cox regression analysis revealed that CPP>45mmHg (RR=3.86, 95% CI 1.89-7.87, P<0.001), common carotid atherosclerotic plaque (RR=2.17, 95% CI 1.38-3.41, P<0.001), multivessel CAD (RR=1.70, 95% CI 2.42-3.34, P=0.001) and a prior history of cerebral vascular disease (RR=3.26, 95% CI 1.41-7.52, P=0.006) were independent predictors of prognosis of cardiovascular diseases.

Conclusions: CPP >45mmHg and common carotid atherosclerotic plaque were independent predictors of adverse cardiac events. The results indicated a high value of noninvasive arterial stiffness index estimation for prognosis.

GW25-e3238
Effect of the combined increase of C-reactive protein and uric acid level on metabolic syndrome and its components
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Objectives: The combined effect of C-reactive protein (hs-CRP) and uric acid on progression of metabolic syndrome (MS) is inadequately defined. The aim of this study is to evaluate the effect of the combined increase of high-sensitivity C-reactive protein (hs-CRP) and uric acid (UA) on metabolic syndrome and its components.

Methods: A total of 21936 subjects who took well-man or -woman check up in our hospital were enrolled. Hs-CRP, uric acid, fasting plasma glucose, lipid profile, waist circumference and blood pressure were measured to analyze the relationship between metabolic syndrome and its components with hs-CRP and uric acid in three groups (low-risk group: hs-CRP<1 md/dL, mid-risk group: hs-CRP 1~3 md/dL, high-risk group: hs-CRP>3 md/dL).

Results: (1) As hs-CRP values increased, waist circumference, uric acid, triglycerides, fasting plasma glucose, systolic blood pressure, diastolic blood pressure and high-density lipoprotein increased among the three groups. F values were 86.38, 41.11, 23.37, 18.56, 19.22, 17.88 and 12.23 separately (P<0.01). (2) Mid and high-risk groups of hs-CRP with hyperuricemia were closely related to waist circumference, triglycerides and systolic blood pressure. OR values were 3.26, 3.27, 1.59 and 3.77, 3.38, 1.64 separately (P<0.05). (3) The incidence of metabolic syndrome increased gradually with the combined increases of hs-CRP and uric acid, they were 49.06% and 55.59% in the mid and high-risk groups of hs-CRP with hyperuricemia (P<0.01).

Conclusions: With increased values of both hs-CRP and uric acid, metabolic disorders tended to be worse and the incidence of metabolic syndrome was increased. Hs-CRP and uric acid can be used as a clinical predicting or monitoring item for MS.

GW25-e0837
Effects of tea intake on blood pressure: a meta-analysis of 21 randomized controlled trials
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Objectives: The effect of tea intake on blood pressure (BP) is controversial. We undertook a meta-analysis of randomized controlled trials to determine changes in systolic and diastolic BP due to the intake of black and green tea.

Methods: MEDLINE, EMBASE, and the Cochrane Controlled Trials Register were searched from 1966 until January 2014 for studies in parallel group or crossover design in which BP was assessed before and after receiving black or green tea for at least 1 week. The weighted mean difference was calculated for net changes in BP by using fixed-effects or random-effects models. Previously defined subgroup analyses were performed to explore the influence of study characteristics.

Results: 21 eligible randomized controlled trials with 1323 subjects were enrolled. After the tea intake, the pooled mean systolic and diastolic BP were ~1.8 mmHg (95% confidence interval [CI], –2.4~–1.1 mmHg) and –1.4 mmHg (95% CI, –2.2~–0.6 mm Hg) lower, respectively, compared with the tea-free controls. Subgroup analysis showed that the BP-lowering effect was apparent in the subjects who consumed a tea over a median of 12 weeks (systolic/diastolic BP, ~2.6/2.1 mmHg, both P<0.001). Stratified by type of tea, green tea significantly reduced systolic and diastolic BP of ~2.1 (95% CI, –2.9~–1.2) and ~1.7 (95% CI, –2.9~–0.5) mm Hg, and black tea significantly reduced systolic and diastolic BP of ~1.4 (95% CI, –2.4~–0.4) and ~1.1 (95% CI, –1.9~–0.2) mm Hg, respectively. Benefits of tea intake were not influenced by ethnicity, treatment dose of tea catechins, individual health status, or caffeine intake.

Conclusions: Meta-analysis showed that long-term (≥12 weeks) ingestion of a tea (green and black tea) resulted in a significant reduction in systolic and diastolic BP.
280.2±233.7, P<0.05) were found between the two groups, while LF/HF ratio was significantly higher in glucose fluctuation patients, in non-glucose fluctuation subjects. (2.7±0.4 vs 2.0±0.5, P<0.01). Negative correlations of MAGE with SDNN, SDANN, and HF (r = -0.611, -0.601, -0.542, respectively, P<0.05) were found in diabetics, while MAGE was positive correlated with LF/HF ratio (r = 0.593, P<0.05).

Conclusions: Blood glucose variability could lower the HRV of the patients with T2DM, which relates to impairing the cardiac autonomic nervous function and contributes to the risk of CAD among individuals with diabetes.

GW25-e0866
The Study of Experimental Acupuncture-meridians Treatment for Patients with Impaired Glucose Regulativity
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Objectives: To investigate the effect of experimental acupuncture-meridians treatment for patients with impaired glucose regulation. Methods: We selected 59 patients with impaired glucose regulation. There are 31 patients in control group with general advices only but without positive interventions. There are 28 patients in group of experimental acupuncture-meridians treatment one month. In this group, we used a single acupuncture sub-groups: Zusanli (ST36) group, Zusanli (ST36) + Shousanli (LI10) group, Zusanli (ST36) + Sanyinjiao (SP6) group. We measure and compare blood pressure, body weight, body mass index (BMI), waist - height ratio (WSR), OGTT (0 minute, 30 minutes, 60 minutes, 120 minutes, 180 minutes), the average glucose, area under the curve of blood glucose (AUCg), glycosylated hemoglobin (HbA1c), area under the curve of insulin (AUCI) and insulin resistance index (HOMA-IR), IS index (Matsuda index), beta cell function index (Δ130G30 IR, MBCI, I phase Stumvoll index) between groups.

Results: The values before treatment of Zusanli (ST36) + Sanyinjiao (SP6) group are significantly lower than in control group. The WSR and blood pressure were also significantly lower in this group than in control group. The patients in control group with general advices only but without positive interventions. The values before treatment of Zusanli (ST36) + Sanyinjiao (SP6) group are significantly lower than in control group. The WSR and blood pressure were also significantly lower in this group than in control group.

Conclusions: In the experimental acupuncture-meridians treatment for patients with impaired glucose regulation, Zusanli (ST36) + Sanyinjiao (SP6) is significantly effective for management of postprandial hyperglycemia. It is important to the delay the onset of type 2 diabetes and reduces the occurrence of cardiovascular events, and prevents the occurrence of serious diabetic microvascular complications.

GW25-e1581
Blood glucose fluctuation is associated with the 10-year risk for cardiovascular disease among individuals with type 2 diabetes mellitus
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Objectives: The present study aimed to identify the relationship between blood glucose variability and the 10-year cardiovascular disease (CVD) risk in patients with type 2 diabetes mellitus (T2DM).

Methods: A set of 68 consecutive T2DM patients without history of CVD were included to assess blood glucose variability using mean amplitude of glycemic excursions (MAGE). Then patients were divided into two groups: subjects with non-glucose fluctuation, versus 38.64% (Ranged from 17.02% to 63.92%) in patients with glucose fluctuation (P<0.05). The proportion of high CVD risk (Framingham Risk Score >20%) was 51.3% in subjects with non-glucose fluctuation, while it was as high as 72.5% in patients with glucose fluctuation (P<0.05). Correlation analysis showed that MAGE was positively correlated with the 10-year CVD risk in T2DM patients (r = 0.543, P<0.05).

Conclusions: Blood glucose fluctuation contributes to the development of CVD in individuals with type 2 diabetes mellitus.

GW25-e3148
New American Diabetes Association diagnostic criteria for screening previously unknown diabetes in patients undergoing elective coronary angiography
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Objectives: Glycosylated hemoglobin (HbA1c) has become a key component of new American Diabetes Association (ADA) diagnostic criteria for diabetes, which is not included in the World Health Organization (WHO) 1999 criteria. Thus, we aimed to compare WHO 1999 and new ADA diagnostic criteria for diabetes in Chinese non-acute coronary syndrome (ACS) patients.

Methods: Non-ACS patients who had undergone elective coronary angiography (CAG) in PUMCH without previously known diabetes were enrolled consecutively from October 2013 to April 2014. Glucose metabolism abnormalities were evaluated by fasting plasma glucose (FGP), 2-hour oral glucose tolerance test (2h-OGTT), and HbA1c level before CAG. WHO recommended FPG>7.0mmol/L and/or 2h-OGTT glucose>11.1mmol/L as the diagnostic criteria for diabetes, while ADA recommended HbA1c>6.5% as an additional diagnostic criterion.

Results: One hundred and thirty-nine patients (male: 88/139, 63.3%; age: [61.9±10.1] years) were included. According to WHO 1999 criteria, 34 patients (24.4%) had normal glucose regulation, 1 (0.7%) had impaired fasting glucose, 56 (40.3%) had impaired glucose tolerance, and 33 (23.7%) had newly diagnosed type 2 diabetes mellitus (T2DM). ADA criteria diagnosed 8 more patients with T2DM than WHO criteria, and those 8 patients had a higher female proportion (75% vs 31.3%, P=0.018), lower hemoglobin and hematocrit level ([124.8±17.7] g/L vs [135.0±15.1] g/L, P=0.013, [37.1±3.0] % vs [40.9±4.5] %, P<0.021) as well as a higher fibrinogen level ([3.47±0.41] g/L vs [3.02±0.68] g/L, P=0.024) when compared with those diagnosed by both criteria.

Conclusions: Non-ACS patients who were admitted for elective CAG had a high incidence of abnormal glucose metabolism. Compared with WHO 1999 criteria, new ADA criteria with HbA1c assessment are able to identify more previously unknown diabetes patients. Thus, HbA1c level may need to be measured routinely for screening diabetes in patients undergoing elective CAG, especially for female patients with lower hemoglobin level and higher fibrinogen level.

GW25-e1085
Predictive value of “Visceral Adiposity Index” for Type 2 Diabetes Mellitus: A 15-year prospective cohort study
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Objectives: An emerging term “Visceral Adiposity Index (VAI)” was reported to be strongly correlated with glycaemic disturbances and diabetes risk, while little information is known whether VAI could predict future type 2 diabetes mellitus (DM). This study aims to assess the predictive value of VAI for DM in general Chinese population.

Methods: This prospective cohort study was conducted based on a 15-year follow up in a general Chinese population from an urban community. 711 subjects received health examination in 1992, and in 2007 the same examination was performed for them again. 24 were excluded from analysis since DM was diagnosed at baseline. Waist circumference (WC), body mass index (BMI), VAI and cardiovascular risk factors were collected at baseline.

Results: 74 individuals developed DM into DM during a follow up of 15 years. Risks of future DM increased with increasing levels of VAI. Compared with the lowest quartile, the highest quartiles of the 3 measures could statistically increase the risk for the new onset of diabetes (HR=2.90, 4.48 and 3.31 for BMI, WC and VAI respectively). However, no statistic difference was found between the discriminatory power of them (AUC=0.668, 0.701 and 0.649 for BMI, WC and VAI respectively.)

Conclusions: VAI could predict independently in Chinese population, while the predictive power is not better than that of simple anthropometric measures (BMI and WC). Further study does not support additional application of VAI, and more studies based on different races are needed to be performed.

GW25-e1114
Is Pulse Pressure a Predictor of Diabetes in Chinese Han Population?: 15-year prospective study in Chengdu Community
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Objectives: To examine whether pulses pressure (PP) could predict diabetes incidence in a Chinese population during a 15-year follow up.

Methods: The data were collected in 1992 and then again in 2007 from the same group of 687 individuals. Questionnaire, physical examination and laboratory tests were performance by a standard protocol. To assess the effects of baseline PP on the risk of diabetes, Cox’s proportional hazards regression models were used to estimate the hazard ratios, and the discriminatory power of anthropometric measures for diabetes was assessed by the area under the receiver operating curve (ROC).