

44.5%; high TG 45.0%; low HDL 50.8%; high BP 61.4%; high BMI 60.7%). After follow-up in 3.5 years, the ratio of MACCE in CAD with metabolic syndrome patients increased significantly (18.9% vs 15.6%,  $p=0.036$ ). In multivariable model of five factors of MS, MACCE was predicted by high FG (fasting glucose) (OR=1.047, CI 1.005 to 1.091) and low HDL (OR=0.777, CI 0.610 to 0.989). MS confers a higher risk of long-term MACCE in CAD patients with (OR=1.258, CI 1.010 to 1.607) or without diabetes (OR=1.139, CI 1.004 to 1.505).

**Conclusions** The metabolic syndrome has primary predictive ability for MACCE in CAD patients, carried primarily by high FG and low HDL. MS confers a higher risk of long-term MACCE in CAD patients with or without diabetes.

### e0377 CLINICAL STUDY ON THE ONESTOPSHOP DIAGNOSTIC MODE FOR CORONARY ARTERY DISEASE USING CONTRASTED MSCT AT REST

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**Background and objectives** Coronary angiography (CAG) always been regarded the "golden standard" for diagnosis of coronary artery disease (CAD), which was invasive and couldn't provide functional information. Combination of CT coronary angiography (CTCA) and stress myocardial perfusion scintigraphy (MPS) using SPECT could provide both anatomical and functional information non-invasively and accurately. However, the accumulative radiation dose and complex process limit the clinical practice. Taking advantage of the theory of myocardial perfusion changing phasically, we explored the feasibility and accuracy of contrasted MSCT at rest as "one-stop-shop" for diagnosis of CAD.

**Methods** 55 patients, suspected or diagnosed as CAD, were performed with CTCA using retrospective ECG gating at rest. CT first-pass myocardial perfusion imaging (CT first-pass MPI) were reconstructed in both diastolic and systolic phases using the same raw data for CTCA. CT numbers of the myocardium were used as an estimate of myocardial enhancement, which were showed by colour map. We defined myocardial ischaemia as a pattern of transient endocardial hypo-enhancement at systole and normal enhancement at diastole.

**Results** The sensibility, specificity, positive predictive value (PPV), negative predictive value (NPV) and accuracy of CTCA for diagnosis of CAD were 97.1%, 75.0%, 88.2%, 93.1% and 89.5%, respectively, and compared with 92.3%, 93.8%, 97.3%, 83.3% and 92.7%, respectively, for CT first-pass MPI, which had no significant difference with CTCA.

**Conclusions** CTCA+CT first-pass MPI could provide both anatomical and functional information of the CAD synchronously and simultaneously without any more radical dosage, contrast agent dosage and any stress process, which may become the new non-invasive "one-stop-shop" for diagnosis of CAD.

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**Objective** To investigate implication of combination detection MCP-1 and RANTES chemotactic factors in patients with ACS compare to the traditional detection of hs-CRP. And to investigate the significance of the combined detection of a variety of chemokines in early identification, risk stratification, prognosis of ACS.

**Methods** The 300 patients were divided into Coronary Heart Disease (CHD) group (n=240) and control group (n=60) according to the Coronary Angiography (CAG), and CHD group were divided into acute coronary syndrome (ACS) group (n=180) and stable angina pectoris (SAP) group (n=60). The severity and extent of coronary lesions was analysed by CAG and typified by means of Gensini coronary score system. Linked immunosorbent assay was used to measure the concentration of MCP-1, RANTES and hs-CRP. At the same time venous blood samples were collected and total cholesterol (TC) triglyceride (TG), high density lipoprotein cholesterol (HDL-C), low density lipoprotein cholesterol (LDL-C), and red blood cells, white blood cells, platelets count, fibrinogen, and liver and kidney function were detected by automatic biochemical analyser determination.

**Results** Significantly increasing of MCP-1, RANTES, hs-CRP concentration, blood glucose, LDL-C levels were observed in ACS group compared to the SAP group and the control group ( $p<0.05$ ). And significantly decreasing of HDL-C concentration in ACS group were observed compared to the SAP group and control group. The accuracy of ACS prediction by combination detection MCP-1 and RANTES according to logistic regression equation is much better than the traditional detection of hs-CRP (90.6% vs 82.8%).

**Conclusions** Combined with clinical assessment of the actual occurrence of cardiovascular disease using a variety of risk factors, we believe that coronary heart disease and acute coronary syndrome is a complex network systems regulated by multi-element, multi-factor, looking for a single factor as markers for diagnosis of coronary heart disease ACS may be limited. Combined detection of a variety of cytokines which involved in the occurrence of coronary heart disease, and through comprehensive analysis of a number of cytokines to predict cardiac events may more accurately reflect the nature of acute coronary syndrome. MCP-1, RANTES chemokine play a more specific role in monocytes /macrophages, they play a key role in the development and rupture of vulnerable plaque in coronary heart disease, especially in ACS. The effect of combination detection chemotactic factors to predict ACS is better compare to general hs-CRP measurement, multi-chemotactic factors' combination detection maybe come to markers of early identification of ACS.

### e0379 STUDY OF CORRELATIONSHIP BETWEEN MYELOPEROXIDASE PARAOXONASE AND CORONARY ARTERY DISEASE

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**Objective** To investigate the clinical significance of myeloperoxidase (MPO) and paraoxonase (PON1) in coronary heart disease (CHD).

**Methods** We chossed 300 hospitalised coronary heart disease patients according to the results of selective coronaryangiography. Then, we divided them into coronary heart disease group (n=240) and control group (n=60). Coronary heart disease group were divided into stable angina pectoris (SAP) group (n=60) and acute coronary syndrome (ACS) group (n=180) according to clinical diagnosis. Coronary heart disease group were divided into group A, group B and group C according to type of coronary artery disease's pathological changes. We grade the lesions of coronary artery by means of Gensini coronary score system. The day after admission fasting. MPO and PON1 test specimens taken from coronary arterial blood was collected via the sheath and put into anticoagulant tube. the serum MPO were detected by colourimetry method and the PON1 concentration level was detected by pheny acetate method. All cases were asked about both history and physical examination to rule out malignancy, liver fibrosis, recent surgery, severe infection, acute cerebrovascular disease, peripheral vascular disease and so on.