

METHODS Using cross-sectional study, the research is carried out on 60 patients admitted to hospital, presented with chest pain or chest discomfort in the first 12 hours from May 2015 to March 2016. The patients were withdrawn 2 ml of blood to determine hs-Troponin I levels by Architect i-2000 system. The diagnosis bases on coronary CT angiography in 128-slice CT scanner and ECG.

RESULTS The final results showed that AMI was diagnosed in 33 out of 60 cases, which account for 55%. Hs-Troponin I levels of patients in AMI groups were considerably higher than those with other diagnoses. Area under the ROC curve in AMI diagnosis of hs-Troponin I was 0.957. Sensitivity, specificity, positive and negative predictive value of hs-Troponin I at the level of 41.55 ng/L were 91.0%, 89.0%, 91.0% and 89.0%, respectively.

CONCLUSIONS The value of high sensitive Troponin-I holds the key position in early diagnosis of AMI.

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Head to head comparison of two point-of-care platelet function tests used for assessment of on-clopidogrel platelet reactivity in the Chinese acute myocardial infarction patients underwent percutaneous coronary intervention

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OBJECTIVES Platelet function tests are widely used in clinical practice to guide personalized antiplatelet therapy. In China, thrombelastography (TEG) test has been well accepted in clinics, whereas VerifyNow, so far mainly used for scientific research, has not been used for routine clinical practice. The aim of the study is head to head to compare the two point-of-care platelet function tests and analyze the consistency between the two tests in evaluating on-clopidogrel platelet reactivity in the Chinese acute myocardial infarction(AMI) patients underwent percutaneous coronary Intervention(PCI).

METHODS A total of 184 patients were enrolled in the study, on-clopidogrel platelet reactivity was assessed three days after PCI by TEG and VerifyNow with adenosine diphosphate(ADP) as agonist. Data were recorded as the percentage inhibition of platelet aggregation (IPA) for TEG and P2Y12 reaction unit (PRU) for VerifyNow. Based on the previous reports, IPA<30% of TEG and PRU>230 of VerifyNow were defined as high on-clopidogrel platelet reactivity; IPA>70% and PRU<178 were defined as low on-clopidogrel platelet reactivity. Correlation and agreement between the two methods were analyzed by spearman correlation coefficient (rs) and kappa value(k), respectively.

RESULTS Our results showed that VerifyNow and TEG had a significantly moderate correlation in evaluating platelet reactivity (rs= -0.511, p<0.01). A significant although poor agreement (k=0.225, p<0.01) in identifying high on-clopidogrel platelet reactivity and a significantly moderate agreement in identifying low on-clopidogrel platelet reactivity (k=0.412, p<0.01) were observed between TEG and VerifyNow. By use of TEG as the reference method, the cutoff values for VerifyNow in our study were identified as

PRU>205 for high on-clopidogrel platelet reactivity and PRU<169 for low on-clopidogrel platelet reactivity.

CONCLUSIONS By comparing VerifyNow to TEG which has been widely used in clinic, our results indicate that VerifyNow could be an attractive alternative to TEG to monitor on-clopidogrel platelet reactivity in the Chinese patients.

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Difference of carotid artery ultrasound and cardiovascular disease risk factors between rheumatoid arthritis and osteoarthritis

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OBJECTIVES Cardiovascular (CV) morbidity and mortality are increased in rheumatoid arthritis (RA). Chronic systemic inflammation is believed to be an independent risk factor for atherosclerosis. RA and OA for rheumatology outpatients in one of the most common joint disease, We compared carotid intima-media thickness (IMT) of both the common carotid (CCA) and proximal internal carotid (ICA) arteries, and plaque prevalence, between RA and OA participants.

METHODS The information of RA and OA patients hospitalized in Department of rheumatism, East Hospital, Beijing University of Chinese Medicine in 2015 were collected, including blood pressure, levels of ESR, CRP, and RA disease activity score (DAS28), triglyceride (TG), total cholesterol (TC), high density lipoprotein cholesterol (HDL-C), low density lipoprotein cholesterol (LDL-C) and blood uric acid (BUA); Color Doppler ultrasonography of carotid artery used to observe intima-media thickness (IMT), and plaque formation (bilateral common carotid artery-CCA, internal carotid artery-ICA) and the number of plaques, plaque score -Crouse score).

RESULTS We compared 95 rheumatoid arthritis patients to 89 osteoarthritis patients. (1) there was a higher prevalence of hypertension in the RA group; (2)Blood TC, LDL-C and BUA were higher in RA groups than those in OA groups (P < 0.05;P < 0.01), HDL lever in RA group was lower than that in OA group, (P > 0.05); (3)levels of ESR, CRP and platelet count in RA group were higher than those in OA group (P < 0.01);(4)ICA-IMT was higher in RA patients than controls (1.23 vs 1.06 mm, respectively; p < 0.01), while CCA-IMT did not differ significantly. the odds of plaque were significantly increased in RA participants compared to OA (OR 2.51, 95% CI 1.22-3.92).RA TC, LDL-C and OA groups (P < 0.05, P < 0.01), HDL than in OA group decreased (P > 0.05); (4) in patients with RA than in OA increased (respectively, 1.06 mm, P < 0.01); but CCA-IMT had no significant difference; carotid artery plaque incidence in RA was significantly higher in OA (or 2.51, 95% CI 1.22-3.92; LDL-C BUA crouse integral level showed significant positive correlation (P < 0.05). There was significant positive correlation between levels of LDL-C,BUA and Crouse point (P < 0.05).

CONCLUSIONS Compared to OA, RA was associated with a higher prevalence and higher severity of atherosclerosis in the ICA. Our data suggest that carotid artery ultrasound measurement could provide evidence for the discovery of atherosclerosis in RA.