GW25-e3030
Both PON1 Q192R and CYP2C9*2 influence platelet response to clopidogrel and ischemic events in Chinese patients undergoing percutaneous coronary intervention
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Objectives: Clopidogrel nonresponsiveness increases the recurrence of cardiovascular events of patients undergoing percutaneous coronary intervention (PCI). Genetic variations is a major factor to influence clopidogrel response. In this study we investigate the genetic effect of genetic variants on clopidogrel response and clinical outcomes in Chinese patients with PCI.

Methods: Acute coronary syndrome patients undergoing PCI were enrolled. The platelet response to clopidogrel was detected by Thrombelastograph. Platelet reactivity (HPR) was defined as >70% adenosine diphosphate-induced aggregation. 10 single nucleotide polymorphisms (SNPs) were randomly assigned into two groups: study group (n=104) and control group (n=102) and CYP2C9*2 alleles were significantly higher in HPR than normal platelet reactivity (NPR) group (P=0.033 and 0.038, respectively); while the other SNPs were not significantly different between the two groups. The platelet aggregation of PON1 R192Q carrier was significantly higher than non-carrier both at baseline; 5 month after PCI (P=0.010 and 0.024, respectively), and so did CYP2C9*2 carrier (P=0.005 and 0.003, respectively). The risks of MACE increased with PON1 R192Q and CYP2C9*2 alleles during 6-month follow-up (P=0.012 and 0.003, respectively).

Conclusions: Both PON1 R192Q and CYP2C9*2 alleles are associated with HPR and increased risk of ischemic events in Chinese patients undergoing PCI.

GW25-e3443
Novel therapy for Distal Extremity Artery Occlusion by Argatroban Combined with Alprostadil
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Objectives: Distal extremity arterial occlusion is common among peripheral arterial disease (PAD), which is alone or combined with proximal extremity arterial lesion, particularly in elderly and terminal renal disease or diabetes patients. However, poor prospective results, even impossibility are from angioplasty so that the incidence of distal extremity arterial occlusion are desirable. Argatroban, a small molecule direct thrombin inhibitor, not only inhibits the free clot but also bound thrombin with increased risk of ischemic events in Chinese patients undergoing PCI.

Methods: A comparative study

A total of 100 patients were randomly divided into 4 groups; standard treatment group: first group aspirin/A, statin/A (AS group), and second group probucol/P, aspirin/A, statin/A (PAS group). Standard dose was aspirin 100 mg, atorvastatin 20 mg, and probucol 0.5 g. All data were analyzed using SPSS 21.0 software. A P value <0.05 was considered statistically significant, P value >0.05 was considered statistically insignificant.

Results: In 20 mg AS group, 14 out of 48 patients i.e. 33% patients achieved LDL-C goal of <1.8 mmol/L, while in 20 mg PAS group, 24 out of 39 patients i.e. 61.5% patients; in 40 mg AS group, 23 out of 36 patients i.e. 63.8% patients; and in 40 mg PAS group, 41 out of 52 patients i.e. 78.8% patients achieved the goal of LDL-C<1.8 mmol/L. Comparing intensive statin AS group with standard statin AS group, there is statistical significance in achieving LDL-C goal of <1.8 mmol/L; Comparing intensive statin PAS group with standard statin PAS, there is no statistical significance in achieving LDL-C goal (P=0.279). There is no statistical significance between intensive statin PAS group and intensive statin AS group (P=0.148). Regarding effect on HDL-C, no matter standard statin therapy or intensive statin therapy, there is not statistical significance. When probucol is added to intensive statin therapy, HDL-C decreased by 18.10%, with statistical significance (P<0.000).

Conclusions: From the statin dose point of view, we think, atorvastatin 40 mg has higher rate of achieving LDL-C goal of <1.8 mmol/L than standard statin dose by 30.8%. Comparing intensive PAS group with intensive AS group, rate of LDL-C goal of <1.8 mmol/L is higher by 15%, that means antioxidant probucol has synergic effect. Probucol significantly decreases high density lipoprotein, hence cautiously prescribed to patients with low HDL-C level. Besides one case who had liver enzymes elevated 3 times upper normal limit, there were no cases of other adverse effects, no case of cardiovascular events, hence intensive lipid lowering therapy is quite safe.

GW25-e1315
Catheter directed thrombolysis along with mechanical thromboaspiration versus anticoagulation alone in the management of lower limb deep venous thrombosis- A comparative study
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Objectives: Catheter-directed thrombolysis (CDT) with assisted mechanical thrombolysis is now considered as the standard of medical care for deep vein thrombosis (DVT). The study was to describe the immediate & long term (six months) safety and effectiveness of CDT in patient with lower limb DVT compared with the routine anticoagulation alone.

Methods: All 12-85 years old patients with recent (0-8 weeks) DVT were included. In CDT group, thrombus was aspirated mechanically and streptokinase was given along with unfractioned heparin (UHF). After 6 months, deep venous patency and post-thrombotic syndrome (PTS) was assessed by using duplex ultrasonography and Villalta scale, respectively.

Results: Among 51 patients with completed data, 25 patients were allocated additional CDT given for a mean duration of 108±32 hours and 26 patients were allocated standard treatment alone. Grade III (complete) lysis was achieved in 37% and grade II (50%-90%) lysis in 65% of patients. Patients with partial lysis underwent additional CDT and for treatment of venous stenting. After 6 months, iliofemoral patency was found in 20 (80%) in the CDT group vs. 7 (23%) in anticoagulation alone group (P<0.01). PTS was seen in 5 (20%) in the CDT group vs. 19 (77%) in anticoagulation alone group (P<0.001).

Conclusions: We conclude that CDT and conventional manual aspiration thrombolysis is a safe and effective option for treatment of lower extremity DVT. Streptokinase infusion can be safely given up to 6 days. As addition of UHF can cause thrombocytopenia, so daily monitoring of complete blood counts is needed during CDT.