e0328 CORONARY ARTERY CALCIFICATION MAY PREDICT CORONARY HEART DISEASE IN WOMEN PATIENTS

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Objectives Using the spiral CT to scan coronary calcification, with qualitative and semi-quantitative method, to predict the presence and extent of coronary artery disease.
Background Early diagnosis of coronary artery disease has been an important clinical issue. Coronary angiography was the gold standard for diagnosis of coronary artery disease, but to have invasive examination, only used in a small fraction of patients. Clinical diagnosis in most patients still need to rely on non-invasive examination. Women have a lower incidence of coronary artery disease, high load test false positive rate. Detection of coronary artery disease in female patients is very important. Coronary artery calcium deposition within the intima is a sign of atherosclerosis. CAC associated with the presence and extent of coronary atherosclerosis.
Methods 108 symptomatic women (mean age 50±5; range 45–76 years) received coronary angiography and chest CT scan. CT image shows left main and at least proximal and middle part of anterior descending was considered acceptable CT scans, punctate calcification as mild, segmental calcification as moderate and diffuse as severe. Stenosis were measured in three vessels. Completely normal coronary artery was defined as no stenosis. Stenosis less than 50% was considered non-obstructive, while more than 50% stenosis as obstructive coronary artery disease.
Results Of all the 108 patients, 41 confirmed by coronary angiography with normal coronary artery, 67 patients in contrast with the narrow, including 12 non-obstructive, 55 of obstructive stenosis. There were no difference in patient with or without obstructive stenosis. 41 patients with normal coronary angiography showed that 26 were not calcified, 15 with mild calcification. The sensitivity to predict obstructive CAD was 68.7%, specificity was 92.8%.
Conclusion Symptomatic women patients without CAC on chest CT scan may have less possibility of obstructive CAD. Such patients may not need excessive coronary angiography.

e0329 SAFETY AND FEASIBILITY OF TIROFIBAN IN ELECTIVE PCI OF COMPLEX CORONARY ARTERY DISEASE

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Objectives To observe the effect of tirofiban on cardiac markers, platelet aggregation rate and major adverse cardiac events (MACE) in patients with complex coronary artery disease undergoing elective PCI and discuss the safety and feasibility.
Methods Retrospectively enrolled 676 patients with complex coronary artery disease and divided into conventional treatment (n=364) group and tirofiban (n=312) group. Aspirin and clopidogrel were used in both groups and tirofiban was used in T-group at least 24 h. Observe cardiac markers (Troponin-I and Creatine kinase-MB), platelet aggregation rate and MACE (recurrent angina, revascularization, non-fatal myocardial infarction and cardiac death) at 6-month.
Results The baseline risk of the two groups were of no difference. Platelet aggregation rate (12% vs 41%, p=0.015), TnI (21% vs 68%, p=0.033) and CK-MB (14% vs 52%, p=0.016) at 24 h after procedure was lower in T-group than that in C-group. Recurrent angina (9.3% vs 14.3%, p=0.046) and MACE (17.3% vs 23.6%, p=0.043) at 6-month was lower in T-group than that in C-group. There was no significant difference in revascularization, non-fatal MI and cardiac death. Platelet count was similar in both groups ($238\pm57\times10^9$/l vs $224\pm46\times10^9$/l, p=0.328). The minor bleeding events increased in T-group (8.2% vs 3.7%, p=0.024), there was 1 gastrointestinal bleeding and no intracranial haemorrhage in T-group.
Conclusions Tirofiban can decrease platelet aggregation rate, cardiac markers (TnI, CK-MB) and improve clinical outcomes at 6-month and it is safe and effective to use tirofiban in patients with complex coronary artery disease. These findings indicate that tirofiban is efficacious and safe in complex coronary artery disease patients undergoing elective PCI.

e0330 ONE CASE OF SEVERE TIROFIBAN-INDUCED THROMBOCYTOPAENIA AFTER THE EMERGENCY PCI

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Clinical Data This was a 73 kg and 78 years old male patient presented urgently with chest pain for late 3 h on September 17, 2009. The ECG showed ST segment elevation up to 0.5–0.6 mv in the leads of V1-V4 and the patient was diagnosed as acute anterior myocardial infarction. After admission, urgently checked routine blood test and coagulation function were normal and platelet count was 150×10^9/l. After treatment with 600 mg oral clopidogrel, 300 mg oral aspirin and intravenous glucoprotein IIb /IIIa receptor antagonist tirofiban in the loading dose of 10 μg/kg and in the continued dose of 0.15 μg/kg/min, the patient was sent to the intervention room. The coronary angiography showed that the proximal part of left anterior descending artery (LAD) was in acute occlusion and percutaneous coronary intervention (PCI) was performed immediately after injected intravenously ordinary heparin sodium 5000 μ (70IU/kg). While the guide wire was cross the occlusion part of LAD, the degree of proximal stenosis was up to 95%, a large number of thrombi was existed and the far-end blood flow was TIMI grade 1. After the proximal part of LAD was expanded by nujing plus balloon (2.0 mm in diameter, 20 mm in length), far-end blood flow was TIMI grade 2 and the residual stenosis was 50%. At this time, reperfusion arrhythmias occurred such as frequent premature ventricular contractions and accelerated ventricular rhythm and chest pain aggravated. Three minutes later, the patient recovered sinus rhythm and chest pain significantly alleviated. After implanted Fire bird drug-eluting stent (3.5 mm in dm, 24 mm in length), the residual stenosis of LAD was disappeared and the distal blood flow reached TIMI grade 3. The vital signs were stable during the procedure and the patient was safe back to CCU ward after operation. Low molecular weight heparin sodium were regularly injected subcutaneously in dose of 6000 μ one time every 12 h and tirofiban were injected continuously by micro pump. The first day after operation, patient had systemic ecchymosis and the platelets count decreased to 3.0×10^9/l. So the patient was taken out of all anti-platelet and anticoagulant drugs and transfused a unit of person platelet. After rechecking routine blood test, the platelet count increased to 15×10^9/l and the ecchymosis did not become heavier. The second day after operation, bone marrow reports said megakaryocyte proliferation activity and too many platelets were destruction. Repeated routine blood test showed that platelet count gradually increased daily. The fifth postoperative day, platelets count was up to 110×10^9/l and stabilised at $120–180\times10^9$/l from then on. Skin ecchymosis gradually subsided. So patient was treated with oral clopidogrel in dose of 75 mg daily, oral aspirin in dose of 100 mg daily, low molecular weight heparin sodium in dose of 6000 μ one time every 12 h.
Discussion This was an elderly male patient with acute myocardial infarction. Before emergency PCI operation, the platelet count was normal. At perioperative period, antiplatelet and anticoagulation

drugs had used consist of clopidogrel, aspirin, GP IIb /IIIa receptor antagonist tirofiban and heparin. The first day after operation, it had occurred severe thrombocytopaenia and skin ecchymosis. While took out of all anticoagulant and antiplatelet drugs and transfused platelet, the platelet count returned to normal after one week. After administered again with clopidogrel, aspirin and low molecular weight heparin, the platelet count maintained normal and skin ecchymosis subsided. So this is a case of drug-induced thrombocytopaenia, but we need to identify which kind of drugs led to thrombocytopaenia. In clinical applications, there is a certain incidence of GPIIb /IIIa receptor antagonist-induced thrombocytopaenia (GIT). Some studies suggested that the sensitivity and specificity had not been established to test the related antibodies currently in the clinical practice. So clinical diagnosis of GIT base on the relationship between drug use and time of event.[1] Since heparin have been used in our case at the same time, it should exclude the possibility of heparin -induced thrombocytopaenia (HIT).[2 3] HIT often occurs about 5–10 days after the administration of heparin and reaches the diagnosis lever after 7–14 day.[4] The incidence of Clopidogrel-induced thrombocytopaenia was 0.2%, which mostly occurs within 2–3 months after taking medicine and is often manifested as thrombotic thrombocytopenic purpura.[5] It don't support that thrombocytopaenia related to these two antiplatelet drugs through the detection of platelet and observation on drugs and drugs used time in our case. This case is fairly considered the side effects of tirofiban, which is used before the operation. The incidence of tirofiban -induced thrombocytopaenia is 0.1%–0.5%. Tirofiban can cause thrombocytopaenia, which, accordingly, can cause bleeding events in foreign reports. China has been reported that tirofiban-induced thrombocytopaenia occurred during the 24 h after taking medicine while the platelet number decreased to 25×10^9/l.[6] The mechanisms of GIT is not yet entirely clear and autoimmune response may be the major cause generally.[1 7] GP IIb /IIIa receptor antagonist could induce GP receptor conformational change and form new antigentic determinants, which are recognised and bound by plasma antibody and are cleared from the blood lastly. Lessons Learned: Once patients, especially performed PCI due to acute coronary syndrome, are used GP IIb/IIIa antagonists, it should closely monitor the platelet count and observe the skin ecchymosis, haematuria, gastrointestinal bleeding and other performance. Severe thrombocytopaenia can cause fatal brain haemorrhage and massive haemorrhage of gastrointestinal tract. Above all we should review routine blood test to detect GIT early within 2–4 h after using GP IIb /IIIa antagoniste. When it happens, the GP IIb /IIIa antagonists should be immediately suspended and the patients could be treated by transfusing platelets and γ-globulin, which is often effective.

e0331 EFFECTS OF SHEN SONG YANG XIN CAPSULE FOR TREATMENT OF CARDIAC ARRHYTHMIA: A SYSTEMATIC REVIEW

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Objective To evaluate the efficacy and safety of Shen Song Yang Xin Capsule for treatment of cardiac arrhythmia.
Methods Randomized controlled trials (RCTs) were searched from the following electronic databases: Wanfang, CNKI, CBM, Vip, PubMed, The Cochrane Library. Quality assessment and data extraction were conducted by two reviewers independently. Disagreement was resolved through discussion. All data were analysed by using Review Manager 5.0 software.
Results 13 studies involving 1896 participants involving. Meta-analysis results showed that, compared with control, (1) the efficacy, Shen Song Yang Xin Capsule is better than propafenone [RR=0.42, 95% CI (0.28 to 0.62)], mexiletine [RR=0.34, 95% CI (0.21 to 0.56)], no significant difference between Shen Song Yang Xin Capsule and amiodarone [RR=0.80, 95% CI (0.57 to 1.14)]. Total efficacy for treatment of cardiac arrhythmia is RR=0.54, 95% CI (0.42 to 0.68). (2) The safety, Shen Song Yang Xin Capsule is no worse than the control in inducing of cardiac arrhythmia [RR=0.06, 95% CI (0.02 to 0.15)], there is no significant difference between Shen Song Yang Xin Capsule and the control in inducing of gastrointestinal adverse reaction [RR=0.84, 95% CI (0.58 to 1.23)].
Conclusion Compared with the current anti-arrhythmic medicine, Shen Song Yang Xin Capsule is no worse than the current anti-arrhythmic medicine, lower in the rate of inducing cardiac arrhythmia, and there is no significant difference between Shen Song Yang Xin Capsule and the current anti-arrhythmic medicine in inducing of gastrointestinal adverse reaction. For the restrictions of the quality of the studies, the evaluation of anti-arrhythmic effects look forward to more high-quality RCT to further evaluation.

e0332 TONGXINLUO CAPSULE FOR CORONARY HEART DISEASE: A SYSTEMATIC REVIEW

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Objective To assess the effectiveness and safety of tongxinluo capsule for coronary heart disease.
Methods Trials were located electronic searches of the Cochrane Library (Issue 4, 2010), PubMed (1966 to April 2010), Wangfang (1984 to April 2010), CNKI (1979 to April 2010), VIP (1989 to April 2010), and CBM (1978 to April 2010). Randomised controlled trials (RCTs) and quasi-RCTs of tongxinluo capsule for coronary heart disease were included. Quality assessment and data extraction were conducted by two reviewers independently. Disagreement were resolved through discussion. All data were analysed using Review Manager 5.0.
Results 13 studies involving a total of 1 496 participants met the inclusion criteria. Meta analysis results showed that: compared with nitrate esters, tongxinluo capsule for the coronary heart disease group had superiority in many aspects such as amelioration according to curative effect: tongxinluo capsule is better than isosorbide dinitrate [RR 0.50 and 95% CI 0.36 to 0.70], than isosorbide mononitrate [RR 0.19 and 95% CI 0.12 to 0.30], total efficacy [RR 0.34 and 95% CI 0.26 to 0.44, p<0.00001], the two groups had significant difference; Effectiveness according to EKG: tongxinluo capsule is better than isosorbide denigrate [RR 0.55 and 95% CI 0.46 to 0.66], than isosorbide mononitrate [RR 0.58 and 95% CI 0.48 to 0.70], total efficacy [RR 0.56 and 95% CI 0.49 to 0.64, p<0.00001], the two groups had significant difference; the tongxinluo group has a lower rates of adverse effect than itrate esters group. Meta-analysis results showed that the incidence rates of adverse effect [RR 0.33 and 95% CI 0.20 to 0.53], p<0.00001], the two groups had significant difference.
Conclusion Now we have evidence to indicate that tongxinluo capsule can improve curative effect no worse than isosorbide dinitrate or isosorbide mononitrate, and have a lower rates of adverse effect. But more large scale multi center randomised trials are still needed.

e0333 EFFECTS OF QILIQIANGXIN CAPSULE ON CHRONIC CONGESTIVE HEART FAILURE IN PATIENTS

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Objective To study the clinical effect of Qiliqiangxin capsule on chronic congestive heart failure (CHF) in patients for two weeks.