main coronary artery (LM) occlusion. The routine PCI and stenting for all patients were performed. During PCI procedure heparin sodium 100u/kg was injected from the arterial sheath catheter. After PCI the loading doses of aspirin 300 mg and clopidogrel 300 mg were immediately application. Right ventricle pacing was used to the patients with sinus arrest, bradycardia and II or III degree atrioventricular block.

RESULTS During PCI paroxysmal ventricular tachycardia (VT) and ventricular fibrillation (Vf) occurred two or more than two times in 30 patients with STEMI. VT and Vf happened in 26 cases (86.7%) when the infarction related artery (IRA) was opened lasting for 10-20 seconds. Vf happened in 4 cases with STEMI before PCI procedure. Vf occurred in 6 patients with NST-ACS after acute target coronary artery occlusion during PCI procedure. VT lasting for 5 seconds to 20 seconds induced Vf in 23 cases (63.9%). The ventricular premature beat (PVC) induced Vf in 13 cases (36.1%). The intravenous application of amiodarone, lidocaine or esmolol was effect on some patients with VT and Vf. All patients with Vf received two-way wave 200 joules DC shock including 2 cases with inferior wall STEMI who received 40 times and 58 times of DC shock (An average of six times of DC shock per case) was performed. Rescue survived patients was 31 cases (86.1. %). 5 cases (13.9%) died of cardiogenic shock. All survivors received stent implantation and regular oral tartaric acid metoprolol and dual antiplatelet. During the follow-up from 6 to 37 months (mean 26 months) VES did not happened again.

CONCLUSIONS During PCI procedure VES are caused by acute myocardial ischemia leading to electrical instability and excessive activation of the sympathetic nervous. Characteristics of VES are prone to occur in 20 seconds of IRA opening. DC shock is primary measures and should be rapid implementation on the basis of antiarrhythmic drugs. Beta blocker is effect on the prevent of Vf.

GW27-e0434

Impact of CYP2C19 variants on drug efficacy of clopidogrel and 1-year clinical outcomes in coronary heart patients undergoing PCI

Sun Hong,[1] Hong Sun,[1] Hui Chen[2]
[1]Department of Pharmacy, Provincial Clinical College of Fujian Medical University, Fujian Provincial Hospital, Fuzhou; [2]Hypertension Laboratory, Provincial Clinical College of Fujian Medical University, Fujian Provincial Cardiovascular Disease Institute, Fujian Province

OBJECTIVES To investigate the impact of CYP2C19 metabolizers on clopidogrel-mediated platelet, inflammatory, endothelial effects and the risk prediction of major adverse cardiovascular events (MACE) in coronary heart patients undergoing percutaneous coronary intervention (PCI).

METHODS We detected the residual platelet aggregation rate (RPA), maximal aggregation rate (MAR) and the plasma levels of sCD40L, sP-selectin, MMP-9, sVCAM-1 and sE-selectin after 24 hours of PCI in 559 patients undergoing PCI treated with clopidogrel, and followed up for one year for MACE. The levels of RPA, MAR, sE-selectin, sCD40l, sP-selectin, MMP-9 and sVCAM-1 in CYP2C19 intermediate metabolizers (IM), poor metabolizers (PM) or both together patients were higher than those in extensive metabolizers (EM) patients.

RESULTS During one-year follow-up, there were 69 cases (13.3%) suffering MACE. The risk of MACE in CYP2C19 IM+PM patients is 2.664 times higher than that in CYP2C19 EM patients (OR=2.664(1.397-5.193), P=0.004). Our results suggest that CYP2C19 metabolizers modulate clopidogrel drug efficacy in coronary heart patients undergoing PCI and further impact on the risk of MACE.

CONCLUSIONS Thus it is benefit for coronary heart patients undergoing PCI treated with clopidogrel if carried out individualized treatment according to CYP2C19 metabolizers.

GW27-e0476

A nomogram to predict contrast induced nephropathy in patients undergoing percutaneous coronary intervention: is the "anti-aging" agent klotho a candidate predictor?

Xiaodong Zhuang, Xun Hu, Zhimin Du, Yue Guo, Feifei Li, Xinxue Liao
Department of Cardiology, the First Affiliated Hospital, Sun Yat-sen University

OBJECTIVES Contrast-induced nephropathy (CIN) has been the third leading cause of hospital-acquired acute kidney injury (AKI). Emerging evidence has revealed that soluble klotho (sklotho) could be a novel biomarker for early AKI diagnosis. We aim to assess the predictive role of sklotho for CIN and develop a prediction nomogram in patients undergoing percutaneous coronary intervention (PCI).

METHODS Patients aged 18 years or older undergoing planed PCI were prospectively recruited between May 2014 and July 2015. CIN was defined as an increase in serum creatinine of 0.5 mg/dL within 48-72 h after the procedure. Plasma sklotho was measured by Enzyme Linked Immunosorbent Assay. The stratified analysis, interaction test, covariate screening and curve fitting were performed to explore the association between sklotho and CIN. A nomogram was then developed and validated using bootstrapped technique. This study was registered on Clinicaltrials.gov (NCT 02650336).

RESULTS 192 patients aged 54.75±12.19 years were selected, 32 (16.7%) patients were diagnosed with CIN. Logistic regression model indicated significant associations between CIN and sklotho, age>75 y, diabetes and Mehran risk score. Saturation effects analysis detected a two-stage change between sklotho and CIN, with the inflection point was 477.4 pg/ml. The area under the ROC curve was 0.758 and the sensitivity and specificity of this point were 90.6% and 53.9%, respectively. A nomogram was developed for the prediction of CIN and showed a bootstrapped-corrected area under the curve value of 0.913. In addition, sklotho significantly increased the predictive value of nomogram.

CONCLUSIONS A strong association between sklotho and CIN was indentified in patients undergoing elective PCI. Lower level of sklotho would be well correlated with CIN. The nomogram with sklotho is a useful tool to predict CIN in patients undergone PCI.

GW27-e0495

Effect of late percutaneous coronary intervention in patients with acute myocardial infarction on ventricular remodeling

Xue Yajun,[1] Ping Zhang,[1] Jiyuan Lv[2]
[1]Beijing Tsinghua Changgeng Hospital; [2]Shanxi Medicial University affiliated First Hospital

OBJECTIVES To observe impact of late percutaneous coronary intervention (PCI) in patients with acute myocardial infarction (AMI) on ventricular remodeling.

METHODS Between June 2013 and March 2015, chose 58 patients treated with late PCI during 7 days and 3 months after AMI, and 50 patients without PCI after AMI as control group. Optimal therapy for all patients included drugs known to carry prognostic benefits after AMI. Both groups took 99TCm-MIBI myocardial perfusion imaging test assessing left ventricular size and function at 1 month and 9 months after AMI. Regarding left ventricular end-diastolic volume (LVEDV), left ventricular end-systolic volume (LVESV) and left ventricular ejection fraction (LVEF).

RESULTS LVEDV, LVESV and LVEF were similar between the two groups in 1 month after AMI. However, significant changes in LVEDV [(102.6±25.6)ml vs (117.2±28.5)ml P=0.035] and LVESV [(55.1±20.6)ml vs (66.4±28.7)ml P=0.043] were observed within two groups at 9 months , and the LVEF of PCI group increased dramatically than control group [(56.1±9.6)% vs (47.4±13.2)% P=0.006].

CONCLUSIONS Late percutaneous coronary intervention in patients with AMI is an effective therapy, prevent ventricular remodeling efficiently and protect left ventricular function.

GW27-e0507

Observation and treatment of common problems in percutaneous coronary intervention via radial artery approach

Chen Zongning, Chen Zongning, Sheng Yang Song
Yunnan province lijiang city hospital

OBJECTIVES To investigate the common problems and related complications of the radial artery approach for coronary intervention, and to deal with the problems related to the coronary intervention in the radial artery approach.

METHODS From January 2010 to June 2010 to hospital heart internal medicine clinic in parallel by transradial approach coronary interventional diagnosis and treatment of patients with 276 cases, observed and recorded all patients underwent transradial artery coronary interventional diagnosis and treatment and analyzes the reasons.

RESULTS 276 cases of transradial coronary intervention in patients underwent transradial coronary angiography in 184 cases, including 26 cases of patients with coronary angiography failed, and femoral artery coronary angiography; and transradial coronary intervention in 92 patients, 2 patients with interventional therapy after the failure the femoral artery interventional therapy, to cause the main reason of

failure diagnosis and treatment including puncture failure of transradial coronary intervention, radial artery spasm, radial artery, subclavian artery and ascending aorta in 248 patients with severe tortuosity; radial artery coronary intervention were successful, 8 cases of perioperative complications, which occurred in 2 cases the puncture site bleeding caused by radial artery sheath out of difficulty or pain in patients with 3 cases of radial artery spasm, 1 cases of forearm hematoma puncture, 1 cases with arrhythmia, but no radial artery Thrombosis and other serious complications.

CONCLUSIONS Transradial coronary interventional diagnosis and treatment for patients with injury, hemostasis, and does not affect the patient's postoperative activities, but also increased the difficulty of operation. Therefore, it is necessary to the performer to strengthen the radial artery puncture skill, skilled selected catheter and guide wire and other equipment, effectively reduce the occurrence of radial artery spasm, hematoma, improve the quality of life of patients.

GW27-e0524

Predictors of Successful Recanalization in Patients with Native Coronary Chronic Total Occlusion: The B-CTO (Busan Single-center CTO Registry) Score

Cai De Jin,[1,2] Moo Hyun Kim,[1,2] Kwang Min Lee,[2] Tae Hyung Kim,[2] Young-Rak Cho,[1] Victor Serebruany[3]
[1]Department of Cardiology, College of Medicine, Dong-A University, Busan, Republic of Korea; [2]Global Clinical Trial Center, Dong-A University Hospital, Busan, Republic of Korea; [3]HeartDrugTM Research Laboratories, Johns Hopkins University, Towson, United States

OBJECTIVES The optimal strategies to manage chronic total occlusion (CTO) are unclear. The J-CTO score (multicenter CTO registry in Japan) is an established assessment tool for predicting successful recanalization. Whether it is suitable and applicable for Korean patients remains uncertain. Therefore, novel CTO scoring model combining clinical and angiographic characteristics may offer clinical advantage for Koreans. We designed and tested a scoring model for the prediction of successful CTO recanalization in a single hospital setting.

METHODS The CTO patients (n=438) underwent coronary intervention were eligible then analyzed. CTO opening was set as the primary endpoint regardless of interventional era and operator bias. The B-CTO (Busan Single-center CTO Registry) scoring model was designed, and later determined by predictors, which were associated with study endpoint. Six independent predictors were selected into derivate B-CTO scoring system: age 60-74 years, lesion length ≥20 mm (assigned 1 point each), age ≥75 years, female gender, lesion located in right coronary artery, blunt stump and bending >45° (2 points each). For each predictor assigned point was based on odds ratio in multivariate analysis. Then, we classified the lesions into 4 groups according to the summation of score points, easy (score 0-1), intermediate (score 2-3), difficult (score 4-5) and very difficult (score ≥6) to access the probability of successful CTO recanalization.

RESULTS Final technique success rate was achieved 81.1%. The probability of successful recanalization for easy (n=64), intermediate (n=148), difficult (n=134) and very difficult (n=92) groups was 95.3%, 86.5%, 79.1% and 65.2%, respectively (p for trend <0.001). Compared to J-CTO scoring model, the B-CTO scoring model significantly improved discrimination as indicated by the area under the receiver-operator characteristic curve (△AUC: 0.083; 95% CI: 0.025-0.141) with positive integrated discrimination improvement of 0.042, and the net reclassification improvement of 56.0%.

CONCLUSIONS Novel B-CTO score model designed and tested specifically in Korean patients with native coronary CTO is suitable for predicting the probability of successful recanalization.

GW27-e0532

All-comers study of safety and efficacy of biodegradable polymer coated Everolimus-eluting coronary stent system [Everoflex] - a median 9-months follow-up study in real world scenario

Rajasekhar Durgaprasad, Vanajakshamma Velam, Vasudeva Chetty Pakala, Vamsidhar Akkulagari, Latheef Kasala, Sowjenya Gopal, Sreedhar Naik Kanavat
Sri Venkateswara Institute of Medical Sciences (SVIMS), Tirupati, Andhra Pradesh, India

OBJECTIVES Everoflex is a biodegradable everolimus-eluting Cobalt-Chromium coronary stent system with thin struts (60μ) developed by Sahajanand Medical Technologies Pvt Ltd (Surat, Gujarat, India). The primary objective of this study is to evaluate and collect the safety and performance data for an all-comers patient population treated with Everoflex coronary stents within daily clinical practice.

METHODS It is a single-center, non-randomized, prospective registry of 318 consecutive patients who underwent percutaneous coronary intervention with Everoflex coronary stents between 1st January and 31st December, 2015. The primary end-point of this study was incidence of cardiac death, myocardial infarction and target lesion revascularization. Secondary endpoint was composite of device oriented end-points as well as patient oriented outcomes comprising overall mortality, any myocardial infarction and repeat revascularization. This study was approved by the institutional ethics committee of our institute. Patients who were not on regular follow-ups to the hospital were contacted telephonically for study specific events. Median follow-up duration was 9 months (range: 4-16 months).

RESULTS The mean age of the study group was 56.5 ± 10.6 years, 236 (74.2%) were male, 106 (33.3%) were diabetic and 134 (42.1%) were hypertensive. Majority (62.3%) had single vessel disease. Left anterior descending artery (66.4%) was the most common revascularized coronary artery. A total number of 420 Everoflex coronary stents (average of 1.32 stents/patient) were implanted in the study population. The average diameter and length of stents were 2.83 ± 0.29 mm and 25.47 ± 8.83 mm respectively. Device related outcomes at 9-months median follow up - Cardiac death, myocardial infarction, target vessel revascularization and target lesion revascularization were reported in 01 (0.3%), 05 (1.6%), 05 (1.6%) and 05 (1.6%) patients respectively. Stent thrombosis was reported in 02 (0.6%) patients, of which 01 (0.3%) was subacute and 1 (0.3%) was late and both were definite stent thrombosis. Overall mortality at 9-months median follow-up was 0.3%. The event-free survival at 9-months median follow-up after Everoflex coronary stent implantations was 99.7%.

CONCLUSIONS This study shows that the use of Everolimus stent is safe on median 9-months follow-up with low risk of early and late stent thrombosis and higher survival rates in all-comers patient populations.

GW27-e0547

Real World Treatment and its Long Term Clinical Outcomes Between DES and CABG in Patients With Left Main Disease, Single Center Experience

Seung Hwan Han, Pyung Chun Oh, Min Soo Kim, Woong Chol Kang, Sun Yong Suh, Kyounghoon Lee, Tae Hoon Ahn, Eak Kyun Shin
Gachon University Gil Hospital

OBJECTIVES Although current practice guidelines still recommend coronary artery bypass graft (CABG) as the standard treatment in patients with high syntax score left main coronary disease (LMCD), real world treatment strategy in patients with LMCD is not known. The purpose of our study is to assess the real world treatment and its long term clinical outcomes in patients with LMCD at single center.

METHODS We compared the factors for selecting therapeutic strategy between DES and CABG and its long clinical outcomes according to anatomical and clinical factors. The MACE includes cardiac death, myocardial infarction, stroke and ischemia driven target vessel revascularization.

RESULTS We analyzed data of 232 consecutive patients with significant LMCD treated by percutaneous coronary intervention with DES (n=120) or CABG (n=112) in single center. All lesions of the LMCD were de novo lesions. Therapeutic strategy was assigned by attending doctors discussing with patients and their family. DES group had similar clinical conditions including EuroScore II (1.54±1.62 vs 1.90±1.23, p=0.07), hypertension, diabetes and creatinine clearance (73.0±29.5 vs 71.9±26.3, p=0.77), ejection fraction (59.4±13.7 vs 56.8±13.2, p=0.15) compared with those of CABG group. However, DES group had low syntax score (21.0±8.4 vs 33.1±10.4, p<0.001), less lesion numbers (2.6±1.3 vs 4.0±1.4, p<0.001), less CTO (12.5% vs 42.0%) and more isolated LMCD (15.8% vs 2.7%, p=0.001) and more LMCD with single vessel disease (25% vs 3.6%, p<0.001) than in CABG group. Independent factors for selection of CABG were high SYNTAX score (beta 0.15, 95% CI 1.10-1.20, p<0.001) and presence of CTO (beta 4.49, 95% CI 2.24-8.99, p<0.001, model excluding SYNTAX score) by multivariate analysis. Long term (mean follow duration 58.0±38.4 months) MACE free survival rate in DES group did not differ significantly with CABG group (86.6% vs 81.4%, Log rank p= 0.72). Of interest, in high SYNTAX score group, long term (mean follow duration 58.6±40.6 months) MACE free survival rate in DES group did not differ significantly with CABG group (73.3% vs 80.3%, Log rank p= 0.17). Independent factors for MACE were old age (beta 1.09,