CONCLUSION In conclusion, with a prevalence of PAOD as high as 14.1% in an elderly community, CyPA might be the link between PAOD and advanced impaired renal function.

TCTAP A-156
The Impact of Abnormal Admission Glycemic Level on In-Hospital Mortality in Non-Diabetic Patients Undergoing Percutaneous Coronary Intervention

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BACKGROUND Many studies investigated the impact of admission glucose level on in-hospital and short-term outcomes in patients (pts) with acute coronary syndrome. There have been limited data regarding the impact of admission glucose level on non-diabetic pts admitted for percutaneous coronary intervention (PCI).

METHODS A total of 2226 non-diabetic pts were enrolled from our single center PCI registry. They were divided into four glycemic level according to their admission non-fasting glucose levels. Group 1; glucose level below 4.0mmol/L, Group 2; 4.0-8.1mmol/L, Group 3; 8.1-11.1mmol/L and Group 4; above 11.1mmol/L was classifi ed as. Their relationships were then studied against adjusted and unadjusted in-hospital mortality with propensity score matching.

RESULTS The in-hospital mortality in non-diabetics admitted for PCI had a near-linear relationship with admission non-fasting glycemic level before and after propensity score matching. In the unadjusted population, as the glycemic level escalating compared to the euglycemic group (Group 2), the impact on in hospital mortality increased. However, this trend was only statistically signiﬁcant in the highest glucose level (Group 4) after propensity score matched adjustment (OR=20.95, 95% CI 1.17-374.72, P=0.04).

CONCLUSION In non-diabetics admitted for PCI, the admission on-fasting glycemic level showed a near-linear relationship to in-hospital mortality. Glucose level on admission is an important risk marker for non-diabetics admitted for PCI.

TCTAP A-157
Impaired Renal Function Is Associated with Severe Coronary Artery Disease in Chronic Stable Angina Patients

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BACKGROUND Cardiovascular disease is the leading cause of morbidity and mortality in renal impaired patients. Many of the patients of chronic kidney disease die of cardiovascular disease before requiring dialysis. Cardiovascular disease in renal impaired patient is potentially preventable and treatable. The aim of this study was to evaluate the association between renal impairment and coronary artery disease severity in chronic stable angina patients.

METHODS 110 patients with chronic stable angina who got admitted for coronary angiography were included in the study. They were divided into impaired renal function group (estimated glomerular filtration rate < 90ml/min/1.73m2) and normal renal function group (estimated glomerular filtration rate ≥ 90ml/min/1.73m2). The severity of the CAD was assessed by angiographic Vessel score and Gensini score.

RESULTS Mean Gensini score was signiﬁcantly high in impaired renal function group (42.30 ± 24.9 vs. 25.65 ± 17.9, p <0.05). There was significant negative correlation between estimated glomerular ﬁltration rate and vessel score (r = -0.30, p <0.05) and between estimated glomerular filtration rate and Gensini score (r = -0.65, p <0.05). In multivariate logistic regression analysis, after adjustment of other factors estimated glomerular filtration rate remain independent predictors of severe CAD (p<0.05, OR =5.73).

CONCLUSION Impaired renal function assessed by estimated glomerular filtration rate is associated with angiographic severe coronary artery disease in chronic stable angina patients and this association is independent of conventional cardiovascular risk factors.

TCTAP A-158
Clinical Features and One-Year Follow-up Study of Diabetic Patients Who Present with Acute Myocardial Infarction

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BACKGROUND To evaluate the clinical characteristics of diabetic patients with acute myocardial infarction and the incidence of major adverse cardiac events after being treated with drug-eluting stents.

METHODS 350 patients who presented with acute myocardial infarction and are treated with drug-eluting stents were classiﬁed into 2 groups according to the presence or absence of diabetes mellitus. The clinical characteristics and one-year follow-up results in the two groups were analyzed.

RESULTS The patients with diabetes mellitus were older than the patients without diabetes mellitus (65.50 ± 12.73 VS 60.80 ± 14.38, p =0.004). The ratio of male patients was lower in the diabetes mellitus group (58.5% VS 70.1%, p=0.012) and the ratio of smoking
BACKGROUND Heavily calcified lesions in coronary arteries have been known as a cause of stent under expansion, which increases the risk of in-stent restenosis. The aim of the present optical coherent tomography (OCT) study was to investigate the clinical impacts of coronary calcium fracture by percutaneous coronary intervention (PCI) on the outcomes after everolimus-eluting stent implantation.

METHODS We enrolled 61 patients with chronic stable angina who underwent everolimus-eluting stent implantation. OCT was performed before and immediately after PCI. Follow-up angiography was conducted at 10 months after PCI.

RESULTS Calcium fracture was seen in 48% of patients by OCT. The median calcium fracture thickness was 450 μm (interquartile range 300 to 660 μm). The maximum calcium fracture thickness was 770 μm. Minimum stent area was significantly greater in the group with calcium fracture compared with the group without calcium fracture (5.0 mm² (4.3 to 4.9) mm² vs. 4.33 ± 1.22 mm², p = 0.047). Stent expansion index was significantly greater in the group with calcium fracture compared with the group without calcium fracture (0.88 ± 0.17 vs. 0.78 ± 0.18, p = 0.030). At 10 months follow-up, the frequency of binary restenosis (44% vs. 41%, p = 0.024) and target lesion revascularization (7% vs. 28%, p = 0.046) was significantly lower in the group with calcium fracture compared with the group without calcium fracture.

CONCLUSION This study reveals that coronary calcium fracture by percutaneous coronary intervention was associated with adequate stent expansion and favorable late outcomes.

METHODS The medical records of 70 patients (47 females, mean age 55 ± 13 years) who underwent PTMC were reviewed. Prior to PTMC, a combination of transthoracic and transesophageal echocardiography were used to investigate all essential mitral valve morphological subcomponents (thickening, mobility, calcification, and subvalvular thickness) and suitability for PTMC. The second transthoracic echocardiographic assessment was performed within 12 months after PTMC. Patients were divided into two categories of successful or unsuccessful according to PTMC results. Successful PTMC was defined as: final mitral valve area (MVA) ≥ 1.5 cm² without a post-procedure mitral regurgitation (MR) grade > 2. The significant predictor of the result was identified by comparing demographic data, initial echocardiographic assessments and mitral valve morphological scores within both groups.

RESULTS The mean MVA increased from 0.9 ± 0.3 cm² to 1.5 ± 0.2 cm², and mitral valve mean gradient (MVMG) decreased from 12 ± 5 to 5 ± 3 mmHg (P < 0.005 for both). Successful results were obtained in 51 (73%) patients compared to unsuccessful results in 19 (27%). Unsuccessful results were due to suboptimal secondary MVA ≥ 1.5 cm² in 19 (25.5%) patients and post-procedure MR grade > 2 in 3 (4%). Multiple logistic regression analysis indicated that young age, lower size of the left atrium (LA), and smaller degree of mitral valve calcification were the predictors of successful result of PTMC.

CONCLUSION Pre-procedural echocardiographic assessment is very helpful in predicting PTMC results. Successful PTMC is influenced by the patients’ age, LA size, and mitral valve calcification.

METHODS We enrolled 70 consecutive patients with no resting wall motion abnormalities (WMA) who underwent DSE. DSE was repeated with pneumatic compression of the lower part of the body (pneumatic compression DSE). Pneumatic compression of the lower part of the body increases left ventricular afterload. We compared the diagnostic accuracy of dobutamine stress echocardiography (DSE) with pneumatic compression of the lower extremities (DSE with PC) and standard DSE. Positive test was defined as the induction of WMA in at least 2 contiguous non-overlap segments at any stage of dobutamine infusion. Significant coronary stenosis was defined as ≥50% obstruction of ≥1 sizable artery by coronary angiography.

RESULTS The mean age of the study cohort was 54.7 ± 9.9 years; 55.7% were females. Thirty-eight patients (54.3%) had significant CAD compared with standard DSE. Positive test was defined as the induction of WMA in at least 2 contiguous non-overlap segments at any stage of dobutamine infusion. Significant coronary stenosis was defined as ≥50% obstruction of ≥1 sizable artery by coronary angiography.

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