P6413
Prevalence of erectile dysfunction in patients coronary artery disease and approach of this subject in cardiology consultation

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Background: There is a strong association between erectile dysfunction (ED) and risk factors for coronary artery disease (CAD). Furthermore, ED per se is an independent marker for CAD, stroke and all-cause mortality. However, cardiologists often does not address this issue at the same time as patients feel embarrassed or reluctant for this discussion.
Purpose: The purpose of this study is to evaluate the prevalence of ED in patients with CAD, to correlate ED with risk factors for CAD, with left ventricular ejection fraction and glycated hemoglobin, as well as to analyze the approached by the doctor and the patient's needs.
Methods: A cross-sectional, prospective study with 435 male patients with stable coronary artery disease characterized by obstruction greater than or equal to 50% in cardiac catheterization. ED was assessed using a self-administered questionnaire from the International Index of Erectile Function - 5 (IIEF-5). At the end of the consultation, the patients answered seven standardized questions about the evaluation of erectile dysfunction at the cardiology clinic. Quantitative variables were expressed as mean, median and standard deviation. The level of significance was 5%.
Results: The prevalence of ED was 80.7% [CI (95%) = 74% -86]. The mean score obtained in IIEF-5 was 15.1. There was correlation of ED with age (p=0.0007), body mass index (p=0.03), glycated hemoglobin levels (p=0.004) and sedentary lifestyle (p=0.006). Between this patients, 80.9% answered that they would like to discuss sexual activity with their cardiologist; 96.9% never had a chance to discuss this subject. Fear of having sex was reported by 21% of participants and 14.6% were ashamed to ask about it. Fifty eight porcent were interested in treating ED and 24.8% had already taken ED medication without a prescription. However only 3% was approached by the physician.
Conclusion: This study demonstrates the very high prevalence of ED in patients with stable coronary disease. Age had the highest correlation with ED. The vast majority of these patients would like to discuss with the cardiologist. More than half of the patients with ED had a desire to treat themselves and about a quarter had used some over-the-counter medication. This illustrates the important role of the cardiologist in the evaluation and counseling of this condition.

P6414
Predictive value of N-terminal pro-B-type natriuretic peptide levels for contrast-induced acute kidney injury in patients undergoing percutaneous coronary intervention with and without chronic kidney

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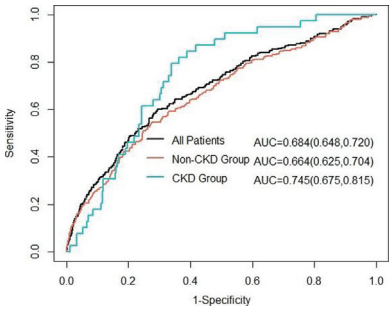
Background: Patients with chronic kidney disease (CKD) have higher circulating levels of N-terminal pro-B-type natriuretic peptide (NT-proBNP) than patients without CKD. NT-proBNP has been considered an important and independent CI-AKI risk factor after percutaneous coronary intervention (PCI) for years.However,there is uncertainty about the diagnostic importance of a given concentration of NT-proBNP for CI-AKI in patients with and without CKD after PCI.
Purpose: This study aimed to evalute the predictive value of NT-proBNP for predicting CI-AKI in patients undergoing PCI, and to compare its value in patients with and without CKD.
Methods: We prospectively observed 2942 consenting patients undergoing PCI from January 2012 to December 2015. Admission NT-proBNP levels were measured before PCI.An increase in serum creatinine of more than 0.3mg/dL or 50% from baseline within 48 hours of contrast media exposure was defined as CI-AKI. The predictive value of NT-proBNP for predicting CI-AKI was assessed by receiver operating characteristic (ROC) and multivariable logistic regression analysis.
Results: CI-AKI occurred in 253 patients (8.6%).The incidences of CI-AKI in CKD patients were higher than without CKD patients (13.9% vs 8.0%, P=0.001). Age>75 years (OR: 1.493, p=0.042),myocardial infaction (OR: 1.496, p=0.018), Lg-NT-proBNP (OR: 2.365, p<0.0001) were independent predictors of CI-AKI. At receiver operating characteristic analyses, the best value of NT-proBNP for predicting CI-AKI in patients with CKD and without CKD were 908 pg/ml and 517 pg/ml respectively. Compared to patients without CKD, NT-proBNP exhibited better discrimination and predictive ability on CI-AKI (c-statistic: 0.745 vs 0.664, p<0.05) in CKD patients. Further more,multivariate analysis performed in patients with CKD showed that plasma NT-proBNP >908 pg/ml (OR: 12.918, p=0.001) was the most important predictor of CI-AKI after adjustment for other factors.
Conclusions: NT-proBNP independently predicted the risk of CI-AKI in patients undergoing PCI. Compared to patients without CKD,the threshold level for CI-AKI prediction was higher in patients with CKD,which exhibited better discrimination and predictive ability.



ROC curve

Comparison of predictive accuracy

No	Sample	AUC	Cut-off point	Sensitivity	Specificity	p-value
1	Total	0.684	516.75	0.601	0.704	p(1 vs 2)=0.465
2	CKD	0.745	907.9	0.846	0.612	p(2 vs 3)=0.049
3	Non-CKD	0.664	517.65	0.547	0.724	p(1 vs 3)=0.129

P6415
Relationship between contrast media volume/contrast dosing and long-term clinical outcomes in patients undergoing coronary angiography

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Background: The excess volume of contrast media is a marker of a more severe coronary culprit lesion and longer intervention duration in patients undergoing cardiac procedures. However, it is unclear whether contrast volume is directly correlated with worse clinical outcomes. We hypothesized that the contrast dose would provide a predictive value to define high-risk patients with worse long-term outcomes.
Purpose: The aim of this study was to investigate the relationship between contrast dose and the incidence of long-term major adverse cardiovascular and cerebrovascular events (MACCE) and all-cause bleeding events in patients undergoing cardiac catheterization and coronary angiography. We conducted this study to find out if contrast volume a possible predictor of worse clinical outcomes.
Methods: We prospectively enrolled 10,961 consecutive patients diagnosed with coronary heart disease expecting coronary angiography from 2012 to 2013. The study population was pursued with a follow-up duration of 1 year. The predictive value of contrast volume, divided into quartiles, for the risk of MACCE and all-cause bleeding events was assessed using Logistic regression analysis.
Results: The cumulative incidence of 1-year MACCE was 8.65%, which was directly associated with increasing contrast volume. In particular, MACCE was observed in 7.16%, 7.89%, 9.31%, 11.73% of cases in the contrast volume quartile Q1 (≤100mL), Q2 (101–140mL), Q3 (141–200mL), and Q4 (>200mL), respectively (p<0.001). Moreover, the incidence of 1-year all-cause bleeding events was noted in 4.70%,5.93%, 7.28%, and 8.21% of patients in Q1, Q2, Q3, and Q4, respectively (p<0.001). The survival analysis showed that the long-term MACCE rate was higher in patients using greater contrast media volume during the coronary angiography. Contrast media volume used >140ml was associated with the occurrence of long-term MACCE, and the incidence was dramatically elevated in patients exceeding a contrast volume of 200ml (p=0.0071).
Conclusion: Our data suggested that higher contrast volume was significantly correlated with an increased risk of MACCE and all-cause bleeding events in patients undergoing cardiac catheterization.
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P6416
Introducing microvascular dysfunction in a large animal model of ST-elevation myocardial infarction

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Introduction: Endothelial dysfunction (ED) is a major risk factor of ischemic heart disease and a modulator of myocardial microvascular flow. We developed a new large animal model of ED using a NOS inhibitor, Nω-nitro-L-arginine methyl ester (L-NAME), to investigate the impact of microvascular disease severity of myocardial infarction (MI).
Methods: Female Göttingen Minipigs were randomized to receive either L-NAME (30 mg/kg/day) (L-NAME n=4) or placebo (CON n=3) for 2 weeks before MI. MI was induced by 150 min balloon occlusion of the mid-LAD followed by 2 h reperfusion. Epicardial coronary flow reserve (CFR) was assessed using a themodilution technique with the Radi intracoronary pressure wire. Cardiac function, myocardial flow reserve (MFR), the ratio of perfusion during adenosine stress and rest, infarct size (IS) and extent of microvascular obstruction (MVO), both expressed as percentage of left-ventricular (LV) mass were measured using MRI. Animals were assessed before and 2 days after MI induction. Cardiac troponin T (cTnT) level was measured 2 h after reperfusion.
Results: Plasma L-NAME concentration after 2 weeks oral administration was