Methods and results: Characteristics, treatments and 30-day mortality were recorded for 1408/1901 consecutive ACS patients. Changes in global model fit, discrimination, calibration and reclassification were evaluated upon addition of CRP to the GRACE risk score. High-CRP patients (CRP >22 mg/L, 4th quartile of CRP) were older, had more comorbidities and worse hemodynamic conditions, received less recommended treatment and had a four-fold higher 30 day mortality. Multivariable analysis demonstrated high-CRP as an important and independent predictor of mortality. Addition of high-CRP in the GRACE model improved global fit, discriminatory capacity and calibration. Patients were divided into 4 groups according to GRACE risk score prediction: <1%, 1 to <5%, 5 to <10% and >=10%. The model with high-CRP allowed adequate reclassification in 12.2%.

Conclusions: Elevated CRP level is an independent and important predictive factor of 30-day mortality in ACS patients, even after adjustment for comorbidities, hemodynamic conditions and treatment. Combined with the GRACE risk score, CRP information improves risk classification.

047

Coronary angioplasty of the chronic total occlusion. Outcome and study of the Balance Risc and Benefit. A study of 62 cases

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Percutaneous coronary intervention (PCI) of the coronary chronic total occlusion (CTO) is widely discussed because of the difficulty and the risks of the procedure and the controversial but very interesting clinical benefit in case of procedure success.

Objective: To evaluate the in-hospital and long-term clinical outcome of PCI in the case of CTO and measure the adverse effects and complications.

Methods: 62 cases of PCI for a CTO were consecutively registered from January 2005 to February 2009. In addition to an assessment of the technical characteristics and procedural outcomes, patients were followed for occurrence of major adverse cardiac events (MACE). These patients are distributed in two groups: (A) for the occlusion between 1 and 3 months age and (B) for the occlusion of more than 3 months age. RESULTS: 68 lesions were treated in these 62 patients (47 male and 15 female) with mean age of 59 years (40-80). 42% of theses patients were diabetics, 48% smoker and 26% with hypertension. 27 patients had an ST elevation acute coronary syndrome (ACS) and 24 a non ST elevation ACS, where 2 had stable angina. Balloon angioplasty was performed in only 4 cases and the stenting in 58 cases with use of 64 stents (average of 1.1 stent / artery and of 1.2 stent / patient), we used drug eluting stent in only 10 case (15.6 %). Total procedure success rate, defined by a patent artery (less then 30% residual stenosis) with TIMI 3 flow (grade 3) at the end of the PCI was 83 %(57/68) . The success was better in the group A 90% (29/32) then the group B 77% (28/36) (P < 0.05). The most frequent cause of procedure failures was unsuccessful crossing with the wire in 6 cases and no severe acute complications were done. Theses CTO required long procedures with an average time of fluoroscopy of 30 ' 13 ", an average calculated dose radiation DAP of 20611 cGy / cm2 and a high mean amount of contrast media 289.46 ml. At the preliminary clinical results, patients with successful PCI of a CTO had a significantly better clinical outcome than those whose PCI was unsuccessful.

048

Does heart rate predict coronary allograft vasculopathy and coronary events in heart transplant recipients?

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Previous studies have shown that heart rate is a predictor of coronary events and cardiovascular mortality. Moreover, pathophysiological studies indicate that a relatively high heart rate has detrimental effects on the progression of coronary atherosclerosis. Heart transplant recipients frequently have sinus tachycardia related to cardiac denervation. Therefore we evaluated the prognostic importance of heart rate in heart transplant recipients.

143 consecutive heart transplant recipients (age at transplantation: 48.5±13 years) with at least a 2 year survival after transplantation were studied with a 9.5 year mean follow-up (range 2-23 years). Basal heart rate was measured at rest 3 months after heart transplantation in the absence of beta-blocker therapy or acute rejection. Survival without cardiac event was compared between patients with basal heart rate < or >95/min (median) according to Kaplan-Meier method using log-rank test.

Fifty-six patients had coronary irregularities or stenoses at routine biennal coronary angiography and 87 had angiographically normal coronary arteries during the follow-up. Mean basal heart rate did not significantly differ between these two groups (96.4/min vs 98.3/min p=0.34). Twenty-seven patients had a coronary event (myocardial infarction, percutaneous coronary intervention or coronary death). Survival without coronary event did not significantly differ between patients with basal heart rate > or < 95/min (logrank p= 0,97).

Conclusion: This series does not support a prognostic influence of heart rate for cardiac allograft vasculopathy or coronary events in heart transplant recipients.

049

Marked reduction of operator radiation exposure by using a patient lead cover during coronary angiography or percutaneous intervention

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Background: Operators and patient radiation exposure during interventional cardiology procedures may induce radiation injury and may increase risk of cancer.

Objectives: To determine the effectiveness of a lead cover placed over the patient abdomen and groins in reducing operator radiation exposure during coronary intervention.

Methods: Radiation exposure measurements were performed over an 8 weeks period, in patients undergoing diagnostic and/or interventional coronary procedures. Usual protection of the operator was ensured using a lead apron, low leaded flaps, and leaded glass. Each of three procedures was realized using a lead cover placed on the patient abdomen. Operator irradiation was assessed by using 3 electronic dosimeters placed over the apron on the chest and in the back (no 1, 2) on the left arm (no 3). Patient radiation exposure (using the diamentor system), ambiental irradiation (using an electronic dosimeter placed in the room opposite to the Xray tube) and fluoroscopy times were recorded. Results are presented in mean ± SEM and comparisons assessed by student t test.

Results: Operator exposure was assessed during 189 procedures (136 coronary angiograms and 53 percutaneous coronary interventions) in 71 cases (37%) with the lead cover over the patient (group 1) and in 118 cases (63%) without it (group 2). Fluoroscopy times, dose area products and ambient irradiation were similar with and without the lead cover (4 ± 2 vs 4.1 ± 0.6 min, 55,7 ± 5,8 vs 57,6 ± 4,2 Gy cm^2 and 0.7 ± 0.2 vs 0.8 ± 0.1 µSv respectively – p > 0.05). However, operator irradiation was markedly decreased by using the lead cover: from 19.2 ± 3.1 to 4.9 ± 0.9 µSv at the chest level (p=0,001), from 1.8 ± 0.3 to 0.3 ± 0.1 µSv at the back (p=0.002) and from 25.8 ± 4.7 to 10.2 ± 2.2 µSv at the left arm (p=0,019).

Conclusions: Using a lead cover placed over the patient is highly effective in attenuating operator scatter radiation exposure during coronary procedure. Such additional protection device might be useful either in the perspective of long duration procedure or in routine use.

050

Prognostic impact of arterial access site in PCI for acute coronary syndromes

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Background: Percutaneous coronary intervention (PCI) is the cornerstone of revascularization in acute coronary syndromes (ACS). The radial artery cathete-