Takotsubo cardiomyopathy (TC) is characterized by a transient left ventricular (LV) dyssynergy. The predictors of prognosis in TC are not yet fully established.

**Purpose:** To identify predictors of outcome in patients (P) diagnosed with TC.

**Methods:** A multicenter study involving 5 hospital centers that included all patients diagnosed with TC in the last 10 years. We assessed demographic data, precipitating factors, and clinical presentation, trying to establish the predictors of in-hospital and out-of-hospital death and chronic renal failure.

**Results:** We included 67 P diagnosed with TC. During hospitalization (5.9±4.2 days) the following complications occurred: heart failure (29.9%), cardiogenic shock (14.9%), atrial fibrillation (9%), complete atrioventricular block (4.5%), acute pulmonary edema (3%), stroke/TIA (3%), LV thrombus (1.5%) and death (1.5%).

The following variables were identified as predictors of in-hospital complications: (i) Heart failure; (ii) significant left ventricular (LV) wall thickness; (iii) hypodyssynergy (p<0.007), syncope at presentation (p=0.043) and ST segment elevation on the admission EKG (p=0.015); (ii) ST segment depression on the admission EKG was identified as a predictor of acute pulmonary edema (p=0.011); (iii) LV dysfunction was an independent predictor of heart failure (p=0.011) and stroke/TIA (p=0.049); (iv) Male gender was an independent predictor of stroke/TIA (p=0.048) and death (p=0.002); (v) Other predictors of death were diabetes mellitus (p=0.024) and chronic renal failure (p=0.025).

**Conclusion:** In conclusion, TC patients with heart failure, syncope, ST segment depression on admission EKG, male gender, and LV dysfunction are at higher risk of death and/or chronic renal failure. The admission EKG may have a prognostic role in-hospital death and chronic renal failure continues to be a predictor of death and stroke/TIA and death. Diabetes and chronic renal failure were also predictors of death.

**References:**

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spin resonance spectroscopy revealed an increase in nitro-oxidative stress in IO groups. While 1 μM of DOX induced a significant reduction of EMF-6 or H9c2 cells proliferation, dextran-iron (125-1000 μg/mL) alone did not modify cell viability and did not impair DOX cytotoxicity.

Conclusions: IO did not result in a significant increase in DOX cardiotoxicity neither in mice, nor in cardiomyocytes, and did not impair DOX capacity to inhibit cancerous cells proliferation.

P1203 | SPOTLIGHT 2013
Upregulation of neuropeptide Y in the cardiac sympathetic nerves causes stress (takotsubo) cardiomyopathy
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Background: Abrupt conditional changes can interfere with the harmony between the brain and the heart, thereby following impaired cardiovascular function. Stress cardiomyopathy (SC) is a typical example. SC is a disorder associated with transient left ventricular apical ballooning that is induced by stress. The precise molecular mechanisms of SC remain unclear.

Methods and results: (1) To analyze a new animal model of SC in rodents inducing by epilepsy, we demonstrated hypothalamic activation due to Cc2 causes LV dysfunction like SC. (2) Upstream sympathetic activation induces strong up-regulation of neuropeptide Y (NPY) expression in the left stellate ganglion (LSG) and LV sympathetic nerves. (3) NPY reduced the frequency of Ca2+ sparks when co-injected with noradrenaline in the ventricular myocytes of adult rat. (4) We demonstrated that NPY reduced the contraction of ventricular myocytes of neonatal rat when co-incubated with noradrenaline by using phase-contrast microscopy. (5) NPY injection into the LSG induces SC-like LV wall motion. (6) The incidence of SC was less frequent in NPY-/- mice than in NPY+/+ mice.

Conclusions: Our results demonstrate how brain activation translates into molecular signals in the cardiac nervous system and leads to LV apical ballooning.

P1204 | BEDSIDE
Frequent electrocardiographic abnormalities and associated conditions in Chagas disease patients
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Purpose: Chagas disease (ChD) is endemic in Latin American countries, but has become a worldwide problem due to migration of infected individuals to developed countries, mostly in Europe and North America. Electrocardiography has been considered an essential exam to evaluate ChD patients. The objective of this study was to identify prevalent abnormalities in the electrocardiogram (ECG) and common associated conditions in patients with ChD.

Methods: In this observational and retrospective study, all 12-lead standard digital electrocardiograms (ECGs) analyzed by cardiologists of a public telemedicine service in Brazil, from January to December 2011 were assessed. This service attends primary care of 658 cities in Minas Gerais province. ECGs were sent by remote professionals through internet to be analyzed by cardiologists who are trained and experienced in the analysis and interpretation of ECG. The prevalence of ECG abnormalities in patients who declared to have ChD was assessed.

Results: During the study period, 264,324 patients were evaluated; 7590 were ChD patients. (mean age 57.0±13.7 years, 64.1% women). Hypertension was the most frequent comorbidity, present in 61.3% of the ChD patients, followed by diabetes (9.1%) and dyslipidemia (6.9%). Family history of coronary disease was reported by 32.6% of the patients, and 10.7% referred smoking. Only 30.1% of the most frequent comorbidity, present in 61.3% of the ChD patients, followed by smoking. Only 30.1% of the ChD patients referred smoking. Only 30.1% of the ChD patients reported by 32.6% of the patients, and 10.7% referred smoking. Only 30.1% of the ChD patients reported smoking. Only 30.1% of the ChD patients referred smoking. Only 30.1% of the ChD patients referred smoking. Only 30.1% of the ChD patients referred smoking. Only 30.1% of the ChD patients referred smoking. Only 30.1% of the ChD patients referred smoking. Only 30.1% of the ChD patients referred smoking.

Conclusions: Our results demonstrate how brain activation translates into molecular signals in the cardiac nervous system and leads to LV apical ballooning.

P1205 | BEDSIDE
Angiographic and clinical outcomes of paclitaxel coated balloon angioplasty versus uncoated balloon angioplasty in drug eluting stent restenosis: subgroup analysis from the PEPCAD-DES study
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Background: In PEPCAD-DES late loss as well as the need for repeat revascularization was significantly reduced with drug coated balloon (DCB) angioplasty compared with plain old balloon angioplasty (POBA) for drug-eluting stent (DES) restenosis (clinical trials.gov NCT0098439). We now evaluated whether the use of DCB is different in paclitaxel DES restenosis or non-paclitaxel DES restenosis and in diabetics and non-diabetics.

Methods and results: 110 patients with a DES restenosis of either Sirolimus- (SES), Everolimus- (EES) or Paclitaxel-eluting (PES) stents in a native coronary artery with indication for percutaneous coronary intervention were referred. The dimensions of the restenotic lesion ranging from 2.5 to 3.5 mm and lesion length less or equal to 22 mm were randomized to treatment with either DCB or POBA in six centers. 38 patients were randomized to POBA and 72 patients to DCB. Patients suffered from repeat restenotic lesion (≥2nd) in 56.5% (N=50) in DCB group and 52.6% (N=20) in POBA population. In the DCB group restenosis was located in SES (N=41, 56.9%), PES (N=20, 27.7%) or EES (N=11, 15.3%). Numbers for POBA group were SES (N=27, 71.1%), PES (N=7, 18.4%) or EES (N=3, 13.2%). DCB as compared with POBA significantly reduced late loss in PES restenosis and non-PES restenosis with 0.46±0.50mm vs. 1.58±1.03mm (p<0.002) and 0.31±0.54mm vs. 0.90±0.67mm (p<0.001), respectively. DCB as compared with POBA significantly reduced late loss in diabetics and non-diabetics, respectively. At angiographic 6 month follow-up late lumen loss (LLL) in patients treated with a DCB (n=22) was 0.51±0.72 mm in diabetics, and 0.39±0.54 mm in non-diabetics (n=42). In patients treated with POBA LLL was 1.45±0.85 mm in the diabetic subgroup and 0.91±0.71 mm in non-diabetics (n=24).

Conclusions: Paclitaxel coated balloon angioplasty was superior to POBA for treatment of PES and non-PES restenosis. DCB effect on late loss did not differ between type of DES. DCB effect on late loss was more effective in patients without diabetes.

P1207 | BEDSIDE
SYNTAX score is associated with in-hospital mortality as assessed by GRACE risk score in patients with acute myocardial infarction
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Background: Current guidelines for the management of patients with acute myocardial infarction (AMI) recommend the GRACE score for risk stratification with assessment of admission variables. The syntax score (SS) is a comprehensive angiographic scoring system that is derived entirely from the coronary anatomy and non-invasive testing. We investigated the relationship between severity of coronary artery disease (CAD) assessed with SYNTAX score and GRACE risk score in patients with acute myocardial infarction.

Patients and methods: From the observatoire des Infections du Cote d'Or (RICO) survey, 614 consecutive patients hospitalized for an AMI from 1st march 2011 to 30 august 2012 and who underwent coronary angiography were included. Patients were analyzed into 3 tertiles of risk based on GS.

Results: The tertiles of risk were defined as low (n=205) (GS - 133), intermediate (n=204)(GS:133-165), and high risk (n=205)(GS ≥ 165). Age and co-morbidities increase gradually with increased GS risk. Also, the number of diseased vessels and coronary angiography increased across the tertiles (p < 0.001). In-hospital mortality increased from the low to the highest tertile (0.0%, 2.0% and 11.8%, p < 0.001). Patients at high risk had significantly higher SS values compared with the intermediate and low GS risk (median (IQR) SS: 13 (6-20) vs 9 (4-15) vs 7 (3-12), respectively, p < 0.001). Moreover, SS was strongly correlated with GS (r=0.254, p < 0.001), and remained significant in patients with multivessel disease. By logistic regression analysis, both GS and SS score are significant correlate of hospital mortality (OR (95% CI) 1.02(1.0-1.09), p < 0.001 and OR (95% CI) 1.11 (1.07-1.15), respectively).

Conclusion: Although SS and GS don't share any common items, they are strongly associated for prognostic information. Both scores allow for an accurate personalized assessment of patient risk.

Conclusion: Although SS and GS don't share any common items, they are strongly associated for prognostic information. Both scores allow for an accurate personalized assessment of patient risk.