ers (CRS-1 and CRS-2) were investigated. Abnormal CRS-1 was defined as abnormal PLF or abnormal TS only when PLF was not analysable. Abnormal CRS-2 was defined as abnormal TS or abnormal PLF only when TS was not analysable.
Results: There were 295 patients with LVEF ≤ 30% in the placebo arm of EMIAT trial of those 57 died during mean follow-up of 22 months. The mortality of 19.3% was comparable to that in conventional-therapy group in MADIT II trial (19.8%). Prediction results are shown in the Table. CRS-1 stratification associated with sensitivity of 49% would reduce the costs of defibrillator therapy to 23%. CRS-2 stratification associated with sensitivity of 68% would reduce the costs of defibrillator therapy to 39%.
Conclusion: As MADIT II indication criteria for defibrillator therapy are not fully implemented due to the lack of financial resources, the selection of patients at the highest risk with acceptable sensitivity using Holter-based risk stratifiers might be of considerable clinical value.

Prediction of all-cause mortality using CRS-1 and CRS-2

	CRS-1		CRS-2	
	abnormal	normal	abnormal	normal
non-survivors (absolute numbers)	28	29	39	18
survivors (absolute numbers)	41	197	75	163
sensitivity (%)	49.1		68.4	
positive predictive value (%)	40.6		34.2	

1015-218 Value of Electrocardiographic Parameters in Identifying Patients With a Mild Form of Arrhythmogenic Right Ventricle Dysplasia

Khurram Nasir, Chandra Bomma, Darshan Dalal, Daniyal Ahmed, HariKrishna Tandri, Ariel Roguin, Cynthia James, Crystal Tichnell, Hugh Calkins, Johns Hopkins Medical Institutions, Baltimore, MD

Background: Although overt forms of ARVD are easily identified, it is difficult to differentiate patients with a mild form of ARVD who have minimal involvement of the right ventricle from those with idiopathic ventricular tachycardia (IVT). The aim of our study was to identify electrocardiographic (ECG) criteria that best distinguish early ARVD from IVT.
Methods & Results: After excluding 19 patients with diffuse ARVD, the study population consisted of 48 consecutive patients who presented with left bundle branch block (LBBB) VT. Localized ARVD (n=20) was diagnosed based on the presence of regional RV lesions, such as segmental RV wall motion abnormalities (hypo-akinetic or dyskinetic areas), with mild or no ejection fraction reduction, whereas IVT (n=30) was classified based on the exclusion of structural heart disease. Patients with localized ARVD compared to IVT had a greater QRS duration in V1-V3 (113±14 vs.99±12 ms, p=0.0004), S wave upstroke duration in V1-V3 (57±10 vs. 37±9 ms, p<0.0001), QRS dispersion (33±9 vs. 24±11 ms, p<0.02), and QT dispersion (67±18 vs. 37±14 ms, p<0.0001). The relative prevalence of ECG abnormalities in these two conditions is shown in the table. An S wave upstroke duration ≥55 ms in V1-V3 had the highest diagnostic value with a Chi-square value of 36.7.
Conclusion: A delayed S wave upstroke in V1-V3 is the ECG parameter which best differentiates mild ARVD from IVT, and might be considered as diagnostic ECG criteria for ARVD.

ECG Characteristics of ARVD vs. Idiopathic Ventricular Tachycardia

	Localized ARVD **n=20**	**Idiopathic VTn=28**	**P value**	**Ch- Square value**
T wave inversion V1-V3 and beyond	14 (70%)	0 (-)	<0.0001	27.6
Epsilon wave	3 (15%)	0 (-)	0.03	3.8
QRS≥110 V1-V3 ms	10 (50%)	0 (-)	<0.0001	17.7
QRS V1+V2+V3/ QRSd V4+V5+V6≥1.2	12 (60%)	2 (7%)	<0.0001	15.7
QRS dispersion≥40 ms	7 (35%)	1 (4%)	0.004	8.3
QT dispersion≥65 ms	12 (60%)	3 (10%)	<0.0001	8.3
S wave upstroke≥55 V1-V3 ms	**18 (90%)**	**1 (4%)**	**<0.0001**	**36.7**

1015-219 The Influence of Atrial and Ventricular Pacing on T Wave Alternans

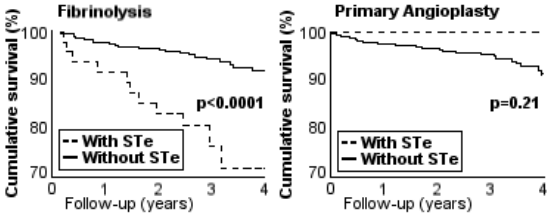
Aneesh V. Tolat, Matthew R. Reynolds, Panos Papageorgiou, Allison W. Richardson, Peter Zimetbaum, Mark E. Josephson, Beth Israel Deaconess Medical Center, Boston, MA

Background: T Wave Alternans (TWA) is a novel technique of risk stratification for sudden cardiac death. Exercise and atrial pacing have been studied with regards to their influence on TWA. In the present study, we investigated the differential effect of atrial and atrioventricular pacing on TWA outcome (TWA-O) and TWA magnitude (TWA-M) and examined their correlation with outcome of standard electrophysiology study (EPS) in patients with coronary disease and left ventricular dysfunction.
Methods: Atrial and atrioventricular pacing at 5 rates (80, 90, 100, 110, 115 bpm) for 1.5 minutes was performed followed by EPS in 34 patients with a history of coronary disease and mean ejection fraction 28% referred for risk stratification. A Cambridge Heart, Heartwave system was used to analyze TWA-O (+ or -) according to standard guidelines. TWA analysis was based on recordings from 6 precordial leads and 4 orthogonal leads.
Results: Atrioventricular pacing resulted in higher TWA-M when compared to atrial pacing alone, but both sites yielded similar TWA-O (p=0.02; Sign Test; kappa=0.61). Monomorphic ventricular tachycardia was inducible in 20/34 patients. TWA was positive in 16 patients during atrial pacing and in 13 patients during atrioventricular pacing but TWA-O did not correlate with EPS outcome. The ECG lead distribution of TWA was independent of pacing site. Leads V2-V4 demonstrated 100% sensitivity for positive TWA
Conclusion: 1. Increased TWA-M during ventricular pacing suggests that ventricular pacing may be proarrhythmic. 2. TWA and EPS measure different indices of electrical instability and could be used in combination. 3. The use of the anterior precordial leads may allow for a simplified approach in recording TWA. 4. Ventricular pacing may be alternative method to assess TWA in patients with atrial fibrillation.

1015-220 Prevalence and Prognostic Implications of Transient ST-Segment Elevation Early After Primary Angioplasty for ST-Segment Elevation Myocardial Infarction

Dan E. Hofsten, Kenneth Egstrup, Birgit Lund, Henning Molgaard, for the DANAMI-2 investigators, Svendborg Hospital, Svendborg, Denmark, Skejby Sygehus, Aarhus University Hospital, Aarhus, Denmark

Background: Episodes of transient ST-segment elevation (STe) on Holter monitoring has been associated with increased mortality after ST-segment elevation myocardial infarction (STEMI). However, previous studies all antedate the advent of primary angioplasty (PA).
We compared the prevalence and prognostic implications of STe, detected early after STEMI treated with fibrinolysis or PA respectively.
Methods: Holter monitoring was initiated at discharge from STEMI in 951 patients who had been randomized to immediate revascularization with either fibrinolysis (n = 473) or PA (n = 478) as part of the DANAMI-2 study. Significant STe was defined as an upward shift of the ST segment ≥ 0.2 mV in magnitude that lasted ≥ 1 minute. Follow-up ranged from 2 to 5 years. Primary end point was all-cause mortality.
Results: In the fibrinolysis group 48 (10.1%) had STe as compared to 26 (5.4%) in the PA group (p = 0.007). Mortality in the fibrinolysis group was significantly higher among patients with STe (hazard ratio: 4.1; p < 0.0001), and in a stepwise multivariate Cox regression analysis incorporating clinical and investigational variables, STe was independently correlated to outcome (p < 0.001). In the PA group however, none of the patients with STe on Holter monitoring died during follow-up.
Conclusion: Immediate revascularization with PA in STEMI reduces the incidence of subsequent STe as compared to fibrinolysis. Furthermore, unlike in fibrinolysed patients, STe is not associated with increased mortality after PA.



1015-221 Speed of QT Rate Adaptation Predicts Risk in Myocardial Infarction Survivors

Peter Smetana, Esther Pueyo, Katerina Hnatkova, Velislav Batchvarov, Marek Malik, St. George's Hospital Medical School, London, United Kingdom

Background: Descriptors of QT/RR relationship were reported repeatedly to provide information superior to simple QTc interval. We therefore investigated the exact profile of QT adaptation to changes in RR interval in Holter recordings of patients from the EMIAT database.
Methods: In 866 (462 amiodarone (A), 404 placebo (P)) 24-hour Holter recordings obtained 1 month after randomisation into EMIAT RR, and QT intervals were measured automatically on a beat-to-beat basis using a commercial Holter system. The individual QT rate adaptation profile was assessed on a continuous basis quantifying the weighted impact of RR interval history on each measured QT interval. The speed of adaptation was assessed by the so-called lambda factor (LF). The smaller the LF, the faster the QT/RR adaptation (figure). The values of the LF were compared between survivors and