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and performed a comparison of manual measurements with automatic measurement offered by an ECG machine.

Methods used: One hundred ECG recordings were randomly selected from a database of ECG examinations made by ECG machine MAC 5000 (Marquette). The results of automatic analysis were blinded to 5 physicians who performed manual measurement.

Summary of results: Physicians tended to measure shorter QRS when compared to automatic analysis, the average difference was 1 to 17 ms (standard deviation 8–27). The agreement among physicians and automatic analysis is shown in the table.

QRS duration	Number of ECG recordings where the required agreement in QRS duration was reached			
	The required agreement ratio in QRS measurement			
	All physicians + ECG machine	ECG machine	All physicians	≥ 4 physicians
≥ 120 ms	25	46	25	40
≥ 130 ms	12	35	11	23
≥ 150 ms	3	16	3	7

Conclusions: The variability in the QRS duration is large. Variability in measurement results could contribute to unsatisfactory results of CRT implementation in selected patients.

1.2.26 PRESUMPTIVE MYOCARDITIS WITH ST-ELEVATION MYOCARDIAL INFARCTION PRESENTATION, GOOD SHORT TERM PROGNOSIS AND SOME RISK FOR RECURRENCE AFFECTS YOUNG MALES AND APPEARS AS A DISTINCT DISEASE

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Objectives: Acute myocarditis may mimic myocardial infarction, since affected patients complain of “typical” chest pain, the ECG changes are identical to those observed in acute coronary syndromes, and serum markers are increased. We describe a case series of presumptive myocarditis with ST segment elevation on admission ECG.

Methods used: From 1998 to 2010, 23 patients (22 males, age 17–42 years) with the following clinical/ECG pattern were admitted to the Coronary Care Unit of a Southern Italian small town (Galatina): all patients were young; all but one were males; all but one patients had fever and flu-like symptoms prior the admission; the coronary risk profile was low; hospital admission was needed for prolonged chest pain with ECG changes (ST elevation) and serum markers increment. In all patients ECG, serum markers and rest echocardiogram were obtained daily. Coronary angiography was performed in all patients during the acute phase. In 8 patients RNA-enterovirus search was performed by PCR-method on stool and saliva specimens. In 5 patients, in whom the admission

diagnosis was STEMI, thrombolysis with r-TPA was performed: in these fibrinogen and D-dimer levels were evaluated before and after treatment. All patients were followed for 75.6± 52.1 months with clinical evaluation, ECG, echocardiogram and exercise stress-test.

Results: Physical examination was unremarkable in all patients. No abnormal Q wave appeared in any patients and angiography did not show coronary artery disease. At echocardiography, no wall motion abnormality was detected in 19 cases, whereas a transient regional dysfunction was observed in 4 cases. Serum markers were abnormal, but with an atypical pattern, being increased on admission, with a relatively low peak and late normalization. In 5 patients in which thrombolytic treatment was performed, fall of serum fibrinogen levels was observed, not associated to any D-dimer increase. Screening for enterovirus was positive in 5/8 patients. All patients were discharged in good clinical state. At follow up, 21/23 cases remained asymptomatic, with normal physical and instrumental findings. In two cases, a relapse was observed, 89 and 45 months after the first episode, again after a flu-like syndrome, with the same clinical, ECG, serum, echocardiographic and coronary-angiographic presentation.

Conclusions: Presumptive myocarditis of possible viral origin, characterized by ST elevation mimicking myocardial infarction, good short term prognosis and some risk for recurrence (10%), is relatively frequent in young males in our country and appears as a distinct disease.

1.2.27 24- HOURS AMBULATORY ECG'S RESPONSE TO TRANSCUTANEOUS ELECTRICAL NERVE STIMULATION IN REFRACTORY ANGINA PECTORIS

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Introduction: Forty male patients, their ages ranged from 42 to 66 years suffering from chronic refractory angina participated in the study.

Objectives: to investigate the effect of TENS application on the clinical parameters in refractory angina patients including: severity of symptoms and 24 hour ambulatory ECG reports.

Methods used: They were divided into two equal groups, the TENS group which received routine medications plus TENS for one hour 3 times a day, and the control group received regular medical treatment only. The period of study was two weeks followed by a follow up period of two weeks.

Results: The results of this study showed a significant reduction in the intensity of chest pain, frequency of anginal attacks, and rate of short-acting nitrates consumption in the TENS group. Concerning the episodes of ST depression there was also a reduction in the TENS group, over the Control group.

Conclusions: TENS significantly reduced the intensity of chest pain, frequency of anginal attacks, and rate of short-acting nitrates consumption. Arrhythmia and frequency of silent ischemic episodes were also decreased which emphasized the anti-ischemic effect induced as a result of TENS application.