P4 - Posters - Heart Failure

35 **Decreased HDL, LDL and TG - A New Tool for Acute Peri/Myocarditis Diagnosis**
N. Uriel [1], G. Moravsky [2,3], I. Yofik [2], A. Blatt [2,3], R. Krakover [2,3], E. Kaluski [4], Z. Vered [2,3]
[1] New York, [2] Zerifin, [3] Tel Aviv, [4] Newark, NJ

36 **Pilot Randomized Study of Estimation of Heart Rate Control on Decompensated Heart Failure Patiens Needed Inotropis Support. Short Term Results**
A. Arutyunov
Moscow

37 **A New Impedance Cardiographic Technology for Simple Ambulatory Detection of Asymptomatic Left Ventricular Systolic Dysunction**
D. Goor [2], R. Rotzak [1,2], Y. Rozenman [1,2]
[1] Holon, [2] Tel Aviv

Decreased HDL, LDL and TG - A New Tool for Acute Peri/Myocarditis Diagnosis

Nir Uriel[1], Gil Moravsky[2,3], Inna Yofik[2], Alex Blatt[2,3], Ricardo Krakover[2,3], Edo Kaluski[4], Zvi Vered[2,3]

[1] Center for Advanced Cardiac Care, Cardiology, College of Physicians and Surgeons, Columbia University, New York, USA, [2] Cardiology, Assaf Harofeh Medical Center, Zerifin, [3] Sackler School of Medicine, Tel Aviv University, Tel Aviv, Israel, [4] Invasive Cardiology, Cardiology, University Hospital Newark, Newark, NJ, USA

Background

Acute peri/myocarditis remains a challenging disease to diagnose with the possible confusion with myocardial infarction. Therefore this study aims to investigate lipoprotein alteration as a potential tool for identifying acute peri/myocarditis.

Methods

Sixty one consecutive patients 59 (96.7%) males age 31.4±10.5 years, with first episode of acute peri/myocarditis were enrolled in the study. Acute peri-myocarditis diagnosis was confirmed by the following: clinical history, electocardiographic evidence of ST elevation or PR depression, elevated inflammation markers and echocardiographic findings. Patient's detailed medical history, EKG, echocardiography and blood tests including lipid profile were obtained within 24 hours after admission. Follow up examination repeating the same parameters were obtained upon recovery.

Results

Markedly decreased level of HDL was observed, 81.4% of the patients had HDL < 35 mg/dL, 30.5% had extremely low level of HDL < 25 mg/dl. After recovery, HDL level increased in all patients. Significant changes in the levels of LDL and TG were also observed.

	Baseline	*Follow-up*	*P value*
HDL	28.5±11.6	46.2±12.0	<0.001
LDL	81.1±24.4	95.9±27.5	<0.001
TG	116.9±67.1	140.5±75.2	=0.011

Conclusions

Low HDL, LDL and TG levels were found during acute peri/myocarditis. Marked reduction of HDL levels during acute peri/myocarditis is a new marker for the disease and may assist in differentiating acute peri/myocarditis from acute coronary syndrome.

Pilot Randomized Study of Estimation of Heart Rate Control on Decompensated Heart Failure Patiens Needed Inotropis Support. Short Term Results

Alexander Arutyunov

Therapy, Heart Failure, Russian State Medical University, Moscow, Russian Federation

Idea:The mostly often hospitalisations cause of HF patients is decompensation of onset HF. Among clinical signs of such patients there is high heart rate and often such patients needs inotropic support. Fast beta-blockers titration is risky, so we investigate the possibility of heart rate control in decompensated heart failure patients receiving inotropic suppor.

Materials and methods: Patients with HF NYHA III-IV due to ischemic cause, hospitalized with decompensation and needed inotropic support, were included the study. The inclusion criteria were systolic arterial pressure > 100 mmHg, and heart rate > 90 bpm, sinus rhythm . 41 patient were enrolled. 20 and 21 in groups. First groupe(active treatment) received fn-channels blocker in addition to standardt therapy in dose 5mg/BID with increasing to 7,5 mg/BID from second day. Second groupe received standardt therapy wich includes (Nitrates, loop diuretics, inotropic support–ACEi, beta-blockers after relatively stabilization.). All patients have Svan-Gans catheterisation during 72 hours. Hemodynamics measurements were performed.
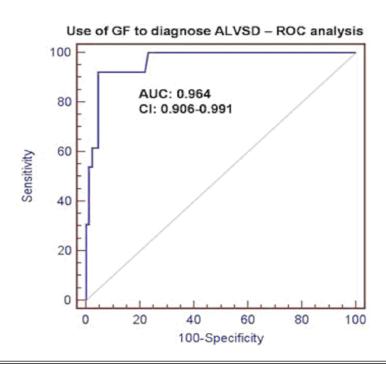
Results: HR in groups on 24 and 72 hour time points were 87 ± 7bpm vs 101 ± 5bpm and 65 ± 7 vs 89 ± 11 ($p=0,001$), PCWP on 24 and 72 hour time points were 20 ± 3 vs 21 ± 4 ($p=0,37$) and 15 ± 2 vs 19 ± 2mmHg ($p=0,001$). CPP in groups on 24 and 72 hour time points were 49 ± 2 vs 44 ± 3($p=0,001$) and 54 ± 5 vs 48 ± 3 mmHg($p=0,001$). Conclusion: Recieved data can let us say that fn-channels blockers are well tolerated in decompensated heart failure. Faster heart rate decreasing leads to a faster patient stabilization. Fn-channels blockers increased positive effect in combination with Ca-sensitizator.

A New Impedance Cardiographic Technology for Simple Ambulatory Detection of Asymptomatic Left Ventricular Systolic Dysunction

Daniel Goor [3], Renee Rotzak [1,3], Yoseph Rozenman [1,3]

[1] Cardiology Department, Echocardiography Laboratory, E.Wolfson Medical Center, Holon,
[2] Cardiac Surgery, Tel Aviv University, Tel Aviv, [3] Cardiology Department, Sackler School of Medicine, Tel Aviv University, Tel Aviv, Israel

Objectives: Asymptomatic Left Ventricular Systolic Dysfunction (ALVSD), also termed Stage B Heart Failure, is a precursor of CHF. Data from population screenings indicate that when ALVSD is discovered before ejection fraction (EF) is <40%, the prognosis is incomparably better. However, no new diagnostic methods have been developed to exploit this knowledge for the benefit of patients.

Methods: By using an arm-leg electrode configuration of impedance cardiographic technology, a totally new Systolic Time Interval-based algorithm was recently developed to provide the Granov Factor (GF) as an indicator of myocardial performance. The entire system can replace the CD ROM in a regular computer, transforming any laptop into a diagnostic medical instrument which is called Non-Invasive Cardiac System-Cardiac Dysfunction Surveyor (NICaS CDS). This NICaS CDS was used to predict ALSVD in 100 asymptomatic patients selected from outpatient cardiac clinic. The predictive accuracy was determined using the area under curve (AUC) of the receiver operating characteristic (ROC) curve. ALSVD was defined from 2-D echocardiogram either qualitatively (QL) by an experienced reader, or quantitatively (QN) as an EF<50% by the modified Simpson's rule. **Results:** The prevalence of ASLVD was 12% (QL) and 13% (QN). The AUC of GF as a predictor of ASLVD was 0.980 (QL) and 0.964 (QN). A cut-off value of GF=9.6 was 100% (QN) and 92.3% (QL) sensitive, and 91.0% (QN) and 90.8% (QL) specific for ASLVD. **Conclusions:** NICaS CDS is a simple, portable, readily available system for detection of ALVSD, either by means of a physical examination performed by a GP, or alternatively, through screening the Community population.

Use of GF to diagnose ALVSD – ROC analysis

AUC: 0.964
CI: 0.906-0.991