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J. Klein

- 14:55 **The Mental and Physical Influence of Summer Vacation on Congestive Heart Failure Patients Participating in Regular Exercise Training.**
R. Stein, R. Zinger, S. Ysaschar, M. Maoz, V. Yaari, N. Baruch, N. Sela, R. Milo, A. Pinchas, A. Battler, T. Ben Gal
Petach Tikva
- 15:03 **Outcome of Older Bedouin Females after Acute Myocardial Infarction (AMI)**
Y. Plakht, H. Gilutz, D. Zahger, S. Weitzman
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- 15:11 **Computerized Intervention to Enhance Cardiovascular Prevention. National Computerized Community Cardiovascular Control (4C-N)**
H. Gilutz¹, A. Goldberg², N. Liebermann², B. Gogerman², A. Zuker³, G. Plotkin²
¹Beer Sheva, ²Tel Aviv, ³Omer
- 15:19 **Troponin T as a Predictor of Survival in Patients with Hip Fracture: a Seven Years Follow-up Study**
A. Izhaki, Y. Sleserenko, M. Boaz, Y. Abuhab, A. Fux, D. Greenberg, Y. Haimovitch, Z. Matas, Y. Rozenman, D. Hendel
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- 15:27 **Metabolic Syndrome, Intrathoracic Fat and Coronary Artery Atherosclerosis in Asymptomatic Diabetic Patients – a 64 Slice CT Study**
A. Khashper, T. Gaspar, I. Dobrecky-Mery, M. Azencot, N. Peled, D. Halon
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- 15:35 **Relation of Educational Level to Inflammation-Sensitive Biomarker Level**
A. Steinvil, A. Shirom, S. Melamed, S. Toker, D. Justo, N. Saar, I. Shapira, S. Berliner, O. Rogowski
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The Mental and Physical Influence of Summer Vacation on Congestive Heart Failure Patients Participating in Regular Exercise Training.

Rina Stein, Rachel Zinger, Shoshana Ysaschar, Michal Maoz, Victoria Yaari, Nurit Baruch, Noga Sela, Ricki Milo, Avraham Pinchas, Alexander Battler, Tuvia Ben Gal
Cardiology Department, Rabin Medical Center, Petach Tikva, Israel

Background: Exercise training for advanced heart failure patients is an integral part of the treatment protocol at the Heart Failure Unit in Rabin Medical Centre.

During August, the rehabilitation unit is closed for vacation. During this month, patients are encouraged to continue the physical exercise.

Aim: To determine whether the vacation had an impact on the patients' physical and mental well-being.

Method: Eleven patients (9 men, 10 married and one divorced, age 55 to 69 years), exercising for at least 3 months in the unit, filled a survey regarding their activities, "HADS" survey regarding their emotional health and performed 6 minute walking test pre and post vacation. Ten patients are pensioners and one is self employed.

Results: During the vacation, only 4 patients continued their regular activity: walking and cycling. Pre-vacation, all patients felt physically healthy compared to 60% of them post vacation. 10% reported improvement and 30% claimed worsening.

Post-vacation, 6 minutes walk test decreased by 10%-20% and by 2%-9% in 4 patients each. Three patients experienced increase of 8%-51%.

Regarding the pre-vacation HADS, 8% were depressed, 16% had bad feelings most of the time, 42% had bad feeling sometimes, and 34% felt good all the time. Post vacation, none of the patients were depressed, 17% had bad feelings most of the time, 50% had bad feelings sometimes, and 33% felt good all of the time.

Conclusion: Patient's mental health improved because they did not have to visit the hospital. An individual program after training and proper guidance in which patients can independently work is important.

Outcome of Older Bedouin Females after Acute Myocardial Infarction (AMI)

Ygal Plakht^{1,2}, Harel Gilutz³, Doron Zahger³, Shimon Weitzman⁴

¹ Unit of Nursing Research, ² Department of Cardiology, Soroka University Medical Center, ³ The Leon and Matilda Recanati School for Community Health Professions, ⁴ Department of Epidemiology, Faculty of Health Sciences, Ben Gurion University of the Negev, Beer-Sheva, Israel

Background: Older age and belonging to minority groups are associated with higher one year mortality rate post myocardial infarction. However, the impact of gender is that particular group requires further evaluation. **Aim:** to estimate the 1-year survival among Bedouin Females after an acute myocardial infarction (AMI). **Methods:** Consecutive AMI patients age ≥ 70 years old who were hospitalized in the Soroka University Medical Center, between 2002-2004 and were discharged alive. Four groups of gender-ethnicity were defined: Female-Bedouins, Female-Jews, Male-Bedouins and Male-Jews. Kaplan-Maier survival and Cox regression adjusted for age, reperfusion treatment and discharge diagnoses were performed to compare between the groups. **Results:** There were no significant differences in most defined potential confounders between Female-Bedouins and the other groups. One-year survival rates and adjusted Hazard ratio values are presented in the table:

Demographic group	Females-Bedouins (n=36)	Males-Bedouins (n=52)	Females-Jews (n=542)	Males-Jews (n=593)
1-year survival, %	66.7	86.5	77.9	78.2
AdjHR (95%CI), p	1	0.38 (0.15-0.98), 0.045	0.49 (0.27-0.49), 0.02	0.52 (0.29-0.94), 0.03

Conclusions: Bedouin females are at a higher risk of 1-year mortality after AMI compared to the other gender and Jewish patient groups. As the case-mix and in-hospital treatment were adjusted, the difference may be attributed particularly with post-discharge low adherence with guidelines.

Computerized Intervention to Enhance Cardiovascular Prevention. National Computerized Community Cardiovascular Control (4C-N)

Harel Gilutz¹, Avi Goldberg², Nicky Liebermann², Boris Gogerman², Allon Zuker³,
Gabriel Plotkin²

¹ *Cardiology Department, Faculty of Health Sciences, Ben Gurion University, Beer Sheva,*
² *Clalit Medical Services, Tel Aviv,* ³ *Roshtov Software Ind, Omer, Israel*

Background: Many high-risk patients in need for primary and secondary prevention of cardiovascular disease (CVD), are under-evaluated and under-treated. Lately, a new decision support system was incorporated into the daily work of GP's

Aim: To evaluate physician compliance with computerized recommendation for CVD prevention.

Methods:

Computerized primary care records, laboratory data and drug prescriptions were used to identify patients at high-risk for CVD using an automatic risk-profile processor based on the presence of diabetes, the European "Score" and the "Framingham" index.

Current guidelines adopted by Clalit Health Services were used to generate clinical recommendations. Patients, aged 30-74y who visited primary care clinics of Clalit H.M.O. throughout 1-2007 to 10-2008 were included.

Results: During a 22 months period 1,382,946 patients were evaluated by 4C-N processor; 74.1% were considered as low risk and 23.8% as high risk CVD. In 3.4% of cases (14.3% out of the high risk group) the GP ignored a recommendations for enrollment, thus only 19.9% were enrolled into 4CN intervention group. The main reasons for patients enrollment were the presence of CVD (33.6%), Euro Score >5 (38.6%), the presence of diabetes (24.5%) and Framingham score >20% (3.1%). Most of patients (87.6%) were enrolled within the first 18 month of the intervention activity.

Conclusions: The 4C-N intervention detected the expected amount of high risk patients within 18 months. The impact of this first step on improving guideline adherence is yet to be studied.

Troponin T as a Predictor of Survival in Patients with Hip Fracture: a Seven Years Follow-up Study

Alexander Izhaki¹, Yuri Sleserenko², Mona Boaz³, Yosi Abuhab⁴, Asora Fux⁵, Dan Greenberg², Yaron Haimovitch², Zipora Matas⁵, Yoseph Rozenman¹, David Hendel²

¹ Heart Institute, ² Orthopaedics, ³ Epidemiology, ⁴ Computer Unit, ⁵ Biochemistry Lab, E. Wolfson MC, Holon, Israel

The impact of elevated serum troponin in patients inflicted with low –trauma hip fracture (HF) on late survival has not been assessed yet.

Population & Methods : Troponin T (TnT) (STAT, Roche™) was measured in patients admitted to hospital with HF (63% per-trochanteric) between October 2000 and May 2001. TnT values were obtained on admission, 24 hours later and prior to discharge. Hospital data and late vital status (updated to September 14th 2008) were analyzed. The study group consisted of 147 patients (32 males, aged 81.3 ±8.1 years) who were followed for 1540±1056 days (range : 4-2896). Chi-Square tests and Cox regression analysis were used to determine predictors of death.

Results: Time from admission to surgery was 2.9±2.7 days and overall length of stay was 12.5±6.7 days. 107 (73%) of patients were dead at end of follow up. Elevated TnT (range:0.1-32 ng/ml) was observed on admission in 32 (22 %) patients and altogether during hospitalization in 53 (36%) patients. An ischemic ECG pattern on admission was observed in 10% of patients and was associated with 92% mortality (compared to 67% of those without ischemic changes, p=0.06).

Table of Death Predictors (cox regression)

variable	Hazard Ratio	95% Confidence Interval	P value
TnT	1.057*	1.007-1.1103	0.02
age	1.084	1.05-1.12	<0.0001
Diabetes Mellitus	2.12	1.2-3.46	0.003
Prior MI, CVA	1.65	0.99-2.77	0.055
Prior coronary bypass	0.13	0.018-1.119	0.049

*Increase of 1 ng/ml in TnT was associated with increased risk of death by 5.75%.

Conclusions: Elevated TnT – a manifestation of peri - trauma myocardial injury - is a significant independent predictor of long term survival in unselected group of patients admitted with HF.

Metabolic Syndrome, Intrathoracic Fat and Coronary Artery Atherosclerosis in Asymptomatic Diabetic Patients – a 64 Slice CT Study

Alla Khashper¹, Tamar Gaspar¹, Idit Dobrecky-Mery², Mali Azencot², Nathan Peled¹, David Halon²

¹ Radiology, ² Cardiovascular Medicine, Carmel Medical Center, Haifa, Israel

BACKGROUND: Recent studies suggest that mediastinal fat is metabolically active and may be implicated in the pathogenesis of coronary heart disease (CHD). Metabolic syndrome is common in type 2 diabetics and may predict adverse outcomes. We examined the independent predictive value of intrathoracic and intrapericardial fat distribution for the presence of coronary atheroma on 64 slice coronary CT angiography (CTA) and its relation to the presence of the metabolic syndrome in asymptomatic subjects with diabetes mellitus enrolled, in an ongoing prospective outcomes study.

METHODS: We performed non-enhanced chest CT in 318 pts to determine intrapericardial and extrapericardial intrathoracic fat distribution and cardiac CTA (Philips, Brilliance 64 scanner) to determine coronary atheroma. Extent of fat was assessed as thickness of fat deposits at predefined sites measured from an axial view and coronary disease was assessed as absent/single vessel or multivessel coronary plaque (MVCP). Metabolic syndrome was diagnosed from clinical characteristics according to NCEP III criteria and risk scores assessed from baseline characteristics.

RESULTS: Metabolic syndrome was found in 266 (83.6%) pts and its presence predicted more MVCP [162 (61.1%) vs 21 (40.4%) pts, p=0.006]. Extent of both extra-pericardial fat and intra-pericardial fat were increased in pts with MVCP. Right sided extra-pericardial and intra-pericardial fat independently predicted MVCP after adjustment for Framingham risk or metabolic syndrome whereas left sided extra-pericardial fat independently predicted MVCP after adjustment for Framingham, UK Prospective Diabetic Study (UKPDS) CHD risk or presence of metabolic syndrome (see table).

Predictors of Multi-Vessel Coronary Plaque

Site	Multi-Vessel plaque	Mean \pm SD (mm)	p-univariate	P - adjusted Framingham	p- adjusted UKPDS	p-adjusted metabolic syndrome
Left extra-pericardial fat pad	Pos	17.8 \pm 8.1	<0.001	0.001	0.005	0.029
	Neg	14.2 \pm 7.3				
Right extra-pericardial fat pad	Pos	18.8 \pm 7.0	0.02	0.002	0.26	0.07
	Neg	16.9 \pm 7.2				
Intra-pericardial fat	Pos	5.9 \pm 2.9	0.02	0.035	0.12	0.01
	Neg	5.0 \pm 2.4				

CONCLUSION. In asymptomatic subjects with DM and no history of CAD: 1) Extra-pericardial and intra-pericardial fat predicted presence of multi-vessel coronary plaque independently of well recognized predictors of adverse outcomes. 2. These findings support recent reports highlighting the metabolic role of intrathoracic fat in coronary heart disease.

Relation of Educational Level to Inflammation-Sensitive Biomarker Level

Arie Steinvil¹, Arie Shirom², Samuel Melamed³, Sharon Toker², Dan Justo¹, Nili Saar¹,
Itzhak Shapira¹, Shlomo Berliner¹, Ori Rogowski¹

¹ *Departments of Internal Medicine D and E, Tel-Aviv Sourasky Medical Center,* ² *Faculty of Management, Sourasky Medical Center,* ³ *National Institute of Occupational and Environmental, Tel-Aviv University, Tel-Aviv, Israel*

It is a well-established finding that cardiovascular morbidity varies among groups of different socioeconomic status. Inflammatory processes have been proposed as a possible mediator of this variance. Level of education is an important indicator of socioeconomic status, inversely related to levels of inflammatory biomarkers. Whether this association was significant in a subpopulation of highly educated individuals was questioned. This cross-sectional study enrolled attendees of an executive health screening program intended specifically for executive and high-wage personnel from September 2002 to November 2007. A detailed questionnaire, anthropometric measurements, and laboratory data were used to determine self-reported years of education and cardiovascular risk factors. Linear regression models included high-sensitivity C-reactive protein, fibrinogen, erythrocyte sedimentation rate, and white blood cell count as dependent variables and were adjusted for multiple potential confounders. Data for 8,998 subjects (5,757 men, 3,241 women) with a mean age of 44 years (range 18 to 84) were analyzed. More than two-thirds reported >14 years of schooling, and more than 2,900 reported >17 years of schooling. We found a statistically significant inverse association between number of school years and high-sensitivity C-reactive protein, fibrinogen, and erythrocyte sedimentation rate. Higher levels of education were associated with lower prevalences of diabetes and current smoking in both genders and lower prevalences of hypertension and dyslipidemia in women. In conclusion, level of education was inversely associated with inflammatory biomarkers and prevalence of cardiovascular risk factors, even within highly educated populations.

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