

## TOPLANTI VE HABER ÖZETLERİ

### Son Avrupa Kardiyoloji Derneği Kongresi'nden Haberler ve Türkiye Sunumları

XXII. Avrupa Kardiyoloji Derneği'nin (ESC), Amsterdam Kongresi'ne 26-30 Ağustos 2000 tarihinde, 17112'den fazlası aktif olmak üzere (862 eşli) toplam 22.832 kişi katıldı. Otuz sekiz farklı endüstri organizasyonu ile 66 satelit toplantı yapıldı. Bu yılki kongrenin özelliği derneğin 50. kuruluş yılına denk gelmesiydi. Profesör Lars Ryden (ESC'nin 1998-2000 başkanı) birlik ve ESC ile kardiyovasküler tıbbın ilerdeki işbirliği; Profesör Freek Verheugt (kongre başkanı) Hollanda kardiyolojisi ve tıp konusundaki düşüncelerini söylediler. ESC'nin amacı: kardiyovasküler hastalıkların etkisinin azaltılması ve Avrupa Topluluğundaki yaşam kalitesinde düzelmeyi hedeflemektedir. Yeni başkan Prof. Marten L. Simoons eğitim, araştırma, hasta koruma ve bakımı için önerilere artarak gereksinim duyduklarını belirtti. Bilimsel yönden ESC'ye 8667 özet yollandı. XXII. Kongreye 2729'u kabul edildi. Bu yıl bunların % 74'ü online olarak alındı. Geçen yılki oran % 43 idi. En son bilimsel programda 2 "focus oturum", 3 "hotline oturum", 146 "özet oturum" da 859 sözlü, 1852 poster sunumu yapıldı. Bu postelreni 60'ı tartışmalı poster oturumu olarak uygulandı.

Üç "Hot Line" oturum özellikle tıp dünyasının çok ilgisini çekti: GUSTO IV, EUROASPIRE II, COPERNICUS, APRICOT ASPECT ve kalsiyum kanal blokörlerinin etkinliğinin sorgulandığı raporlar. "Focus" oturumları ekokardiyografi, girişimsel aritmoloji ve periferik perkütanöz girişimleri kapsadı. Bu oturumların 6'sı Amsterdam, Lausanne, Toulouse ve New York gibi 4 değişik merkeze dağıldı. Oturumlarda canlı bağlantılarla panel tartışmaları gerçekleştirildi. Bu toplantıların en önemli yanı teorilerle gerçek pratik uygulamalar arasındaki boşluğun kapatılması idi. Ayrıca, "Americian College of Cardiology" ile "Americian Heart association" ve "Dünya Kalp Federasyonunun himayesinde "African Society of Cardiology"nin birleşik oturumları yapıldı.

Avrupa Kardiyoloji Derneği kurulduğundan bu yana geçen 50 yıl içinde 47 ulusal kardiyoloji derneğinin üye olduğu büyük ve saygın bir organizasyon oluşturmuştur. Temel hedeflerine varmak için yüksek nitelikte araştırma, kardiyoloji bilgilerinin geliştirilmesi ve üyeleri ile paylaşmayı gerekli görmektedir. ESC'nin 26 çalışma grubunda en önemli araştırma konuları kardiyolojide bilgisayar, kalp rehabilitasyonu, egzersiz fizyolojisi, ekokardiyografi ve aterosklerozun patogenezi olarak belirlenmiştir.

Editör

### SÖZLÜ BİLDİRİLER – ORAL PRESENTATIONS

#### Abstract: 1386

Z.Yiğit, N. Atıncı, A.M. Esen, V. Sansoy<sup>1</sup>, D.

**Güzelsoy.** Exercise QRS score in patients with coronary artery disease: an indicator of extent of ischaemia on myocardial perfusion scintigraphy. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 258.

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Exercise-induced changes in Q, R, and S wave amplitudes and their incorporation into a composite index (Athens QRS score) have been reported to increase the diagnostic value of the exercise ECG. The purpose of this study was to compare this score with findings on exercise SPECT myocardial perfusion scintigraphy (MPS).

**Methods:** Three-hundred and seventeen consecutive patients (174 men, 143 women, mean age 57±9 years) who underwent coronary angiography (CA) and MPS were prospectively included in the study. Patients with previous myocardial infarction, left ventricular hypertrophy and left bundle branch block were excluded. Athens QRS score was calculated based on the exercise induced changes of the Q, R and S waves in derivations aVF and V5.

**Results:** Patients were divided into three groups according to the findings of CA and MPS. Group I consisted of patients who had at least one ischemic segment on MPS and significant coronary artery disease (CAD) in CA. Group II included patients with CAD in CA, but without any ischemic segment on MPS. Group III consisted of patients with both normal CA and MPS. The mean QRS score of patients were found to be 3.62±4.30 mm, 1.74±1.12 and 3.14±3.10 mm, respectively. The mean QRS score of Group I patients was found to be significantly lower than those of Group II and II patients (p<0.0001 and p<0.0001, respectively), whereas the mean QRS scores of Group II and III patients were not significantly different. The number of exercise induced myocardial perfusion defects were found to be closely related to the exercise QRS score. The mean QRS score in patients with defects in anterior segments (-4.80±4.86 mm) were found to be significantly lower than the QRS score of patients with only inferior or posterior defects (-2.09±2.8 mm) (p<0.0001). It is concluded that exercise QRS index is not only a marker of the presence, but also the extent of ischemia on myocardial scintigraphy and may be used for risk assessment in patients with CAD. Abstract: 144.

M.Gürsürer, A.Emre<sup>1</sup>, M.Aksoy, H. Gerçekoğlu<sup>2</sup>.

**B.Ersek<sup>1</sup>** Long-term prognostic value of stress-redistribution-reinjection TI-201 imaging in patients artery bypass

surgery. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 5. *Cardiology Dept., Siyami Ersek Th. And CV Surgery Center, İstanbul, Turkey; 1 Cardiology Dept., Siyami Ersek Th. And CV Surgery Center, İstanbul, Turkey; 2 Cardiovascular Surgery Dept., Siyami Ersek Th. And CV Surgery Center, İstanbul, Turkey.*

**Background:** Preoperative stress-redistribution-reinjection TI-201 imaging detect viable but asynergic segments which show functional improvement postoperatively and is considered as a valuable noninvasive method in selection of patients with severe left ventricular dysfunction for revascularization. The long-term prognostic value of the reinjection technique remains unclear.

**Methods:** Fifty-two patients with severe left ventricular dysfunction (mean ejection fraction  $0.32 \pm 0.03$ ) who underwent coronary artery bypass surgery in 1993-1994 were included in the study. Patients had follow-up for  $49 \pm 12$  months. Left ventricular function was assessed by two-dimensional echocardiography. Perfusion was assessed by TI-201 SPECT imaging and was graded on a 4-point scale (0=normal, 3=absent uptake) using the 20-segment model. Perfusion index was derived by adding the score of all segments and dividing these by 20.

**Results:** Mean ejection fraction increased from  $0.32 \pm 0.03$  to  $0.46 \pm 0.04$ . Mean perfusion index did not show a significant difference as a whole during follow-up compared to the early postoperative values ( $0.9 \pm 0.4$  and  $1.1 \pm 0.4$ ,  $p=NS$ ). Nineteen cardiac events occurred: 6 deaths (four from cardiac and two from noncardiac causes), 13 myocardial infarctions. Multivariate Cox survival analysis identified the number of viable segments detected preoperatively (chisquare=7.2,  $p=0.002$ ), postoperative improvement in TI-uptake (chi-square=6.6,  $p=0.01$ ) and functional improvement (chi-square=5.3,  $p=0.03$ ) postoperatively as independent predictors of cardiac events. Preoperative ejection fraction and functional capacity were not associated with cardiac events in long-term prognosis.

**Conclusion:** These data suggest that preoperative stress-redistribution-reinjection TI-201 imaging, specifically the number of viable segments detected preoperatively and postoperative improvement in TI-201 uptake provide important long-term prognostic information in patients with severe left ventricular dysfunction who had coronary artery bypass surgery. Abstract: 1862.

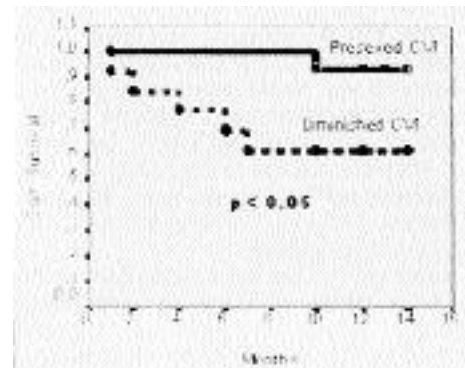
**B.Dağdeviren, O.Bolca, M.Eren, S.Terzi, E.Arkan, Y.Gürlertop, T.Tezei.** Prognostic value of quantitative ultrasonic texture analysis in patients with idiopathic dilated cardiomyopathy. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 349.

*Cardiology Dept., Siyami Ersek Cardiac Surgery Center, İstanbul, Turkey.*

**Background:** Although blunted cyclic variation of mean myocardial gray levels (MGL) have been reported previously, prognostic value of this issue has not been well established in patients with idiopathic dilated cardiomyopathy (IDCMP). The purpose of the present study was to determine whether ultrasonic textural parameters are related to cardiac mortality.

**Methods:** To evaluate this, 27 consecutive IDCMP pts in sinus rhythm were studied. After obtaining the conventional echocardiographic variables quantitative analysis of echocardiographic digitised imaging was performed through a calibrated 256 gray level digitisation system. Systolic and diastolic MGL distribution of septum and posterior wall was observed and Cyclic Variation Index (CVI) was calculated according to the formula:  $(MGL_{diast} - MGL_{syst})/MGL_{diast} \times 100$ . The mean CVI values of septum and posterior wall were considered for statistical analysis.

**Results:** The mean CVI of the 6 pts who had died (1 with sudden death and 5 with progressive heart failure) during a mean follow-up period of 12 months (range 2-16 months) was significantly lower than that of event free pts ( $3 \pm 7\%$  versus  $13.8 \pm 8\%$ ,  $p < 0.001$ ). When we re-analyzed the individual data by assuming the mean CVI value (11%) of whole study pts as cut point, 13 patients were classified as preserved CVI group and 14 pts as diminished CVI group. Although the systolic parameters were not significantly different, survival rate of the diminished CVI group was significantly lower, than that of preserved CVI group (Figure 1).



**Conclusion:** Quantitative ultrasonic textural analysis of pts with IDCMP provides significant prognostic information on cardiac mortality. This information is independent from left ventricular systolic function and degree of dilatation. Abstract: 805

**K.Aydemir, N.Özer, E.Sade, E.Atalar, S.Aksoyek, K.Övünç, N.Nazlı, F.Özmen, A.Oto, S.Kes.** P-wave dispersion: a rapid and non-invasive marker of risk of paroxys-

mal atrial fibrillation in hypertensive patients. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 138.

Cardiology Dept. Hacettepe University, Ankara, Turkey

**Background:** P-wave dispersion has been shown to be used for predicting of patients with lone paroxysmal atrial fibrillation (PAF) from healthy subjects. However it has not been clarified yet whether P wave dispersion could be useful for detecting hypertensive patients with history of paroxysmal AF during sinus rhythm.

**Methods:** Twelve lead surface ECG electrocardiogram was recorded in 41 hypertensive patients (30 men and 21 women; mean age  $61 \pm 12$  years, group A) who had paroxysmal AF and in 46 hypertensive patients without history of AF (33 men and 23 women; mean age  $57 \pm 13$ , group B). All patients were in sinus rhythm. The maximum P wave duration (P max), the minimum P wave duration (P min) and P wave dispersion (P dispersion = P max - P min) were calculated. All patients were also evaluated using echocardiography to measure left ventricular ejection fraction (LVEF) and left atrial diameter.

**Results:** There was no significant difference between two groups in age and sex. P dispersion ( $49 \pm 13$  ms vs  $38 \pm 9$  ms,  $p=0.001$ ) was found to be significantly higher in group A than in Group B, whereas P minimum ( $76 \pm 14$  ms vs  $87 \pm 12$  ms,  $p<0.001$ ) and LVEF ejection fraction ( $62 \pm 4\%$  vs  $67 \pm 6\%$ ,  $p=0.002$ ) were significantly lower in group A than group B. P maximum ( $16 \pm 18$  ms vs  $123 \pm 16$  ms,  $p=0.64$ ) and left atrial diameter ( $39.3 \pm 3.2$  mm vs  $40.8 \pm 3.4$  mm,  $p=0.42$ ) were higher in group A than group B, and the difference was not significant ( $p=0.7$ ). There was a correlation between P dispersion and age ( $r=0.38$ ,  $p<0.05$ ). In univariate analysis, P minimum ( $p=0.001$ ), P dispersion ( $p<0.001$ ) and LVEF ( $p=0.002$ ) were significant predictors of paroxysmal AF in the hypertensive patients but not age ( $p=0.08$ ) and P maximum ( $p=0.6$ ). In multivariate analysis revealed only P dispersion to be a significant independent predictor of paroxysmal AF ( $p<0.001$ ). A P dispersion cut off value of 46 ms classified hypertensive patients in the two groups with a sensitivity of 73% and specificity of 60%.

**Conclusion:** Increased P wave dispersion may be a useful non-invasive simple ECG marker for the assessment of the development of atrial fibrillation in hypertensive patients during sinus rhythm.

Abstract: 3308.

**A. A.Yıldırım<sup>1</sup>, L.Tokgözoğlu<sup>1</sup>, T.Oduncu<sup>2</sup>, I.Haznedaroğlu<sup>3</sup>, A.Oto<sup>4</sup>, D.Akıncı<sup>4</sup>, G.Köksal<sup>2</sup>, E.Sade<sup>1</sup>, S.Kirazlı<sup>3</sup>, S.Kes<sup>1</sup>.** – Soy protein diet significantly decreases plasma thrombomodulin levels. And lipid parameters. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 609. <sup>1</sup>. Hacettepe University Departments of Cardiology, <sup>2</sup> Nutrition/Diet, <sup>3</sup> Haematology, <sup>4</sup> Radiology Ankara, Turkey.

**Objective:** Although the effects of polyunsaturated and saturated fats on endothelial function have been well documented, the effects of soy protein diet are not well known. Thrombomodulin (TM) is a cell surface glycoprotein located at the luminal surface of vascular endothelium and its increased plasma level reflects endothelial injury. The aim of the study was to evaluate the effects of soy protein diet on plasma lipids and TM levels.

**Methods:** We evaluated 14 male non-smoker hypercholesterolemic patients (age  $51 \pm 11$ , range 30-59) with a normal body mass index. After calculating their daily requirements, a diet with 25-30% of energy from fats, 10-12% from proteins and the rest from carbohydrates was instituted. 60% of the animal source proteins of the diet was substituted by soy. All anthropometric and lipid parameters were assessed at baseline and 6 weeks after diet in the same patients.

**Results:** There was a significant improvement in plasma cholesterol low density lipoprotein (LDL) and TM levels after diet, whereas the decrease in triglyceride and apoprotein B remained borderline. HDL, apoprotein A and lipoprotein A levels were not affected with the soy protein diet.

	Before diet	After diet	P value
Thrombomodulin (ng/ml)	49±22	44±17	0.004
Triglyceride (mg/dl)	244±108	205±61	0.056
HDL (mg/dl)	42±8	41±6	0.529
LDL (mg/dl)	176±33	139±35	0.001
Apo A (mg/dl)	137±36	132±21	0.834
Apo B (mg/dl)	153±47	141±36	0.064
Lipoprotein a (mg/dl)	22±26	22±28	0.778

**Conclusion:** Soy protein diet significantly improves the lipid profile in patients with hypercholesterolemia. Furthermore, the endothelial function as judged by TM levels also improves.

Abstract: 1907

**M.Aksoy, M. Gürsürer<sup>1</sup>, I.Akdemir, A.Emre<sup>1</sup>, M.Oc<sup>1</sup>, V. Yazıcıoğlu<sup>1</sup>, N. Uslu<sup>1</sup>, B.Ersek<sup>1</sup>** – The effect of homocysteine-lowering therapy on endothelium-dependent vasodilation and myocardial ischaemic burden in patients with coronary artery disease. European Heart Journal Vol 21, Abstr., Suppl. August/September 2000, page 360.

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This study was performed to determine whether homocysteine-lowering therapy (HLT) improves endothelium-dependent vasodilation and whether this results in a reduction in myocardial ischemic burden in patients with coronary artery disease.

**Methods:** Sixteen male patients (plasma homocysteine levels >15 mMol/L) on a waiting list for routine coronary an-

gioplasty (PTCA) of a focal stenosis at least 70% in the left anterior descending artery were studied. Patients were randomized to receive HLT (0.4 mg of folic acid, 2 mg of vitamin B6, and 6 mg of vitamin B12) or placebo until the time of PTCA (mean 6±2 weeks). At baseline and after four weeks of HLT, brachial artery vasomotion was assessed noninvasively and exercise TI-201 scintigraphy was performed in each patient. Myocardial ischemic burden was defined as maximal deficit and redistribution gradient of perfusion abnormality on the polar map display. All patients had a follow-up angiogram at the time of PTCA.

**Results:** Plasma homocysteine levels were significantly reduced by HLT compared with baseline (19.5±4.1 vs. 11.7±3.1 mMo/L; p<0.0001) whereas placebo had no effect (20.3±6.3 vs. 19.9±6.5 mMo/L; p=NS). HLT produced a marked improvement in endothelium dependent, flow-mediated dilation, from 3.8±1.3% to 9.2±2.2 (p<0.001). There was no significant change in flow-mediated dilation with placebo (3.7±1.3% vs. 3.8±1.6%; p=NS). Endothelium-independent, nitroglycerin-induced dilation was similar in the HLT (12.3±2.4 vs. 13.1±1.9%; p=NS) and placebo (13.2±2.2% vs. 12.9±2.8%; p=NS) groups compared with baseline. HLT results in significant reductions in maximal perfusion deficit, from 52±21% to 42±17% (p<0.01) and in redistribution gradient, from 24±13% to 17±8% (p<0.01) whereas placebo did not. The severity of stenosis was not different between the initial ant follow-up angiograms in the HLT (79±8% vs. 80±7%; p=NS) and placebo (82±11% vs. 81±9%; p=NS) groups. In addition, the degree of reduction in plasma homocysteine level was negatively correlated with flow-mediated dilation (r=0.63, p=0.05). Consequently, improvement in flow-mediated dilation was negatively correlated with maximal perfusion deficit (r=0.65, p=0.05) and redistribution gradient (r=0.67, p=0.04). In conclusion, lowering plasma homocysteine levels with HLT improves endothelium-dependent vasodilation and this may result in a reduction in myocardial ischemic burden without a change in the severity of stenosis in coronary patients with hyperhomocysteinemia.

#### POSTER BİLDİRİLER – POSTER PRESENTATIONS

Abstract: P3050

**N.Özdemir, C.Kaymaz, C.Kırma, O.Karakaya, M.Akçay, M.Yüce, M.Bilaloğlu, M.Özkan.** A different type of spontaneous echo contrast appearing in pulmonary veins in the absence of contrast injection: a potential challenge for diagnosis of patent foramen ovale. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 576.

Abstract: P634

**S.Güneri, B.Akdeniz, B.Tamci, O.Badak.** Arrhythmogenicity in hypertension with left ventricular hypertrophy

and its relationship with noninvasive arrhythmia markers. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 101.

Abstract: P3061

**D.Atılğan, V.Akkaya, H.kudat, T.Tükek, M.Özcan.** Assessment of left atrial appendage function and its influence on pulmonary venous flow pattern by transoesophageal echocardiography. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 579.

Abstract: P3583

**E.Atalar, I.Haznedaroğlu<sup>1</sup>, K.Aytemir, N.Özer, S.Aksoyek, K.Övünç, S.Kirazlı<sup>1</sup>, F.Özmen.** Circulating adhesion molecules in patients with stable coronary artery disease. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 658.

Abstract: P979

**H.kültürsay, M.kayıkçıoğlu, L.Can, O.Yavuzgil, S.Payzin, I.Soydan.** Does statin therapy affect the recurrence of angina in patients with aortocoronary bypass grafts depending on the graft type? European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 157.

Abstract: P578

**C.Cakalağaoğlu, N.Keser<sup>1</sup>, V.Özkuş, F.Bacgel, M.Idoz, C.Alhan.** Effect of myocardial protective strategies on mortality and morbidity in patients aged over 65 years. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 87.

Abstract: P2827

**K.Aydemir, E.Atalar, T.Açıl, N.Özer, S.Aksoyek, K.Övünç, A.Oto, F.Özmen, S.Kes.** Effect of spontaneous myocardial ischaemia on XT-dispersion in patients with coronary artery disease. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 520.

Abstract: P3620

**K.Övünç, N.Özer, K.Aytemir, E.atar, S.Kes.** Effects of glibenclamide, a K ATP channel blocker, on warm-up phenomenon in type II diabetic patients with chronic stable angina pectoris. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 667.

Abstract: P2904

**I.Dinçer, D.Kumbasar, G.Nergisoğlu<sup>1</sup>, S.Kutlay<sup>1</sup>, S.Güleç, C.Erol, D.Oral.** Effects of loading conditions in determination of diastolic function measured by tissue Doppler imaging and mitral inflow velocities. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 539.

Abstract: P974

**L.Tokgözoğlu, N. Koylan<sup>1</sup>, I.Soydan<sup>2</sup>, N.Domanic<sup>1</sup>, R.Enar<sup>1</sup>, E.Atalar, M. Kayıkçıoğlu<sup>2</sup>.** Effects of low dose pravastatin therapy on endothelium generated mediators and thrombotic tendency in patients with hypercholesterolemia.



laemia. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 156.

Abstract: P1061

**M.Sezer, A.Y.Nişancı, S.Umman, F.Mercanoğlu, B.Umman, F.Erzengin, O.Özsaruhan.** Effects of Trombolytic Therapy on Distal Coronary Circulation. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 178.

Abstract: P668

**A.Oğuzhan, A.Abacı<sup>1</sup>, N.K.Eryol<sup>1</sup>, E.Seyfeli<sup>1</sup>, T.Sirkeci<sup>1</sup>, I.Özdoğan<sup>1</sup>, E.Başar<sup>1</sup>, A.Ergin<sup>1</sup>, S.Çetin<sup>1</sup>.** Evaluation of right ventricular function by colour Doppler tissue imaging can help to identify patients with right ventricular infarction. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 110.

Abstract: P2129

**D.Kumbasar, I.Dinçer, F.Ertaş, E.Tutar, T.Sayın, C.Erol, D.Oral.** Hyperhomocysteinaemia and restenosis. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 393.

Abstract: P1678

**M.İleri, I.Hisar, E.Yetkin, F.Kobar, S.Korkmaz.** Increased levels of soluble adhesion molecules E-selectin and P-selectin in patients with infective endocarditis and embolic events. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 304.

Abstract: P1688

**Z.Gölbaşı, S.Dinçer<sup>1</sup>, H.Bayol, B.Uğurlu<sup>1</sup>, D.Çiçek, T.Keleş, S.Aydoğdu, D.Erbaş<sup>1</sup>.** Increased nitric oxide in exhaled air in patients with rheumatic heart disease. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 307.

Abstract: P1193

**A.Yıldırım<sup>1</sup>, F.Aybar<sup>2</sup>, G.Kabakçı<sup>1</sup>, H.Yaralı<sup>2</sup>, O.Bükülmez<sup>2</sup>, H.B.Zeyneloğlu<sup>3</sup>, E.Akgül<sup>1</sup>, T.Gürkan<sup>2</sup>, A.Oto<sup>1</sup>.** Increased risk factors for coronary atherosclerosis in young females with polycystic ovary syndrome. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 211.

Abstract: P2973

**M.K.Batur, L.Yıldırım, G.Kabakçı, O.Onalan, R.Çağrıkul, A.Yıldırım, L.Tokgözoğlu, A.Oto.** Inferior lead QT-dispersion on admission electrocardiogram as a new marker for identifying the infarct-related artery in inferior wall acute myocardial infarction. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 556.

Abstract: P3062

**N.Özdemir, C.Kaymaz, C.Kırma, O.Karakaya, M.Yüce, M.Akçay, M.Bilaloğlu, M.Özkan.** Is it possible to determine cut-off limits for left atrial appendage flow velocities associated with spontaneous echo contrast and/or thrombus formation in patients with mitral stenosis. Euro-

pean Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 580.

Abstract: P1007

**S.Güneri, Ö.Bardak, M.Özdamar, S.Çalışkan, B.Akdeniz, Ö.Kırımlı.** Is there any myocardial inflammation or cell injury even after uncomplicated coronary interventions? European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 164.

Abstract: P1683

**B.Yaymacı, S.Dağdelen, K.Kıralı, B.S ay, F.Ercan<sup>1</sup>, S.Arbak<sup>1</sup>, Y.Başaran, I.Dindar.** Is total LDH level a safe parameter for haemolysis in paraprosthetic regurgitation? The contribution of left atrial necrosis: an electronmicroscopic study. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 305.

Abstract: P2807

**O.Caymaz, H.Tezcan, A.S.Fak, a.Toprak, S.Tokay, A.Oktay.** Measurement of myocardial fractional flow reserve during coronary angioplasty in infarct related and non-infarct related coronary artery lesions. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 515.

Abstract: P3013

**M.Gündoğdu, V.Sansoy<sup>1</sup>, Z.Yiğit, O.Uysal, D.Güzelsoy.** Nitrate-enhanced 201TI SPECT imaging in patients with severe left ventricular dysfunction. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 566.

Abstract: P3720

**M.Uzun, E.Kurulay<sup>1</sup>, K.Erinç, C.Barçın, F.Kılıçarslan, C.Genç, K.H.Karaeren, E.Demirtaş.** Predicting the pulmonary artery wedge pressure from mitral regurgitation jet: a comparative study with catheterization. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 692.

Abstract: P3632

**S.Altınmakas, B.Dağdeviren<sup>1</sup>, C.Uyan, N.Keser, S.Bulut, O.Pektaş.** Prediction of viability by pulsed wave Doppler tissue sampling of asynergic myocardium during low dose dobutamine challenge. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 670.

Abstract: P3591

**O.Yeşildağ<sup>1</sup>, M.Ünsal<sup>2</sup>, M.Yazıcı<sup>1</sup>, H.Bahadı<sup>1</sup>, Ö.Yılmaz<sup>1</sup>.** Pulmonary abnormalities in congestive heart failure: reversal by the inhaled anticholinergic agent ipratropium bromide. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 660.

Abstract: P2826

**K.Aydemir, N.Özer, I.Can, E. Atalar, S.Aksoyek, K.Övünç, G.Gürsel, f.Özmen, A.Oto, S.Kes.** Relation between QT-dispersion and thrombotic ECG pattern in pati-

ents with acute anterior myocardial infarction. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 520.

Abstract: P1554

**A.Emre, M.Yazıcıoğlu, M.Gürsürer, D.Ünal, B.Ersek.** Relation of serum iron parameters to myocardial perfusion, left ventricular function and angiographic morphology in hypercholesterolaemic post-menopausal women. European Heart Journal Vol 21, Abstr. Suppl. August/September 2000, page 273.

Abstract: P1182

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