

## Summaries of Articles

### Clinical Investigations

#### **Coronary Artery Bypass Surgery and Outcomes in Patients 75 Years of Age or Over**

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In this retrospective study we aimed to analyse preoperative risk factors, mortality and morbidity figures, early and midterm results of coronary bypass surgery in patients 75 years of age or over and, additionally, compared results with the lower age group (below 75 years).

This review included 142 patients, out of a total 4745 patients who underwent coronary bypass between July 1992 and August 2001 (Group 1). The study group was compared with a randomly selected control group of patients below 75 years of age (Group 2). Results: Group 1 consisted of patients with a mean age of 76,6±2,3 years, while it was 56±3,7 years for the Group 2. There was no significant difference between the groups concerning preoperative risk factors, left ventricular function parameters and coronary artery disease involvement. Hospital stay, low cardiac-output and incidence of atrial fibrillation were found to be high in group 1. Also, hospital mortality for group 1 (4,2%) was higher than group 2 (1,4%, p=0,2). Actuarial survival rates were 95,7% in a mean period of 58,5±2,7 months for group 1 and 97,1% in 72,4±3,6 months for group 2 (p=0,5). In conclusion, when compared with younger patients, coronary bypass seems to be linked with early problems but still can be performed with acceptable mortality and morbidity rates.

Key words: Coronary by-pass, elderly people

#### **Angiotensin-Converting Enzyme Gene Polymorphism in Turkish Hypertensive Patients and its Association with Left Ventricular Hypertrophy**

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The association between ACE gene polymorphism and left ventricular hypertrophy has been studied in different populations with conflicting results. The aim of this study was to investigate this issue in Turkish patients with essential hypertension. One-hundred and seventeen hypertensive patients and 75 healthy controls were studied. Left ventricular mass indexes were examined by echocardiography and PCR technique was used to analyze ACE gene polymorphism. The distribution for DD, ID and II genotypes was not significantly different between patients (42%, 49% and 9%) versus controls (35%, 53% and 12%). Allelic frequencies were also similar in both groups (66 vs 62% for D, and 34 vs 38% for I allele in patients vs controls respectively). The prevalence of LVH was 35% in hypertensive group and the genotypic distribution (DD, ID and II) was not significantly different between patients with and without LVH (41%, 57%, 2% vs 42%, 45%, 13%, respectively). The LVMI was not different among the carriers of the three genotypes; mean values were 113±37 g/m<sup>2</sup> in DD; 110±36 g/m<sup>2</sup> in ID; and 96±11 g/m<sup>2</sup> in II patients (p=0.5).

In conclusion, ACE gene polymorphism showed no association with either the occurrence of left ventricular hypertrophy or left ventricular mass in Turkish hypertensive patients.

Key words: ACE gene polymorphism, hypertension, left ventricular hypertrophy

#### **Blood Pressure Levels in Turkish Adults: Initial Trend to Improved Blood Pressure Control**

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Blood pressure (BP) was measured in 2389 subjects in the survey 2001/02 of the cohort of the Turkish Adult Risk Factor Study, and trends were studied after sex and age-group stratification. Comprised therein and similarly studied were 1782 identical men and women (mean age 52.2±12.4) followed up in the preceding 4 years. When age was kept

constant, overall net mean BP in the male sample population declined by 3.8/2.3 mmHg and diastolic pressure in women by 1.5 mmHg. No significant difference was observed in systolic BP among women. These changes were accompanied by an increase of 0.6 kg/m<sup>2</sup> in body mass index in both genders. The prevalence of hypertension, defined as being on antihypertensive medication, or displaying a blood pressure  $\geq 140$  and/or  $\geq 90$  mmHg, was 36% in men and 49% in women, indicating the existence of 12 million hypertensive Turkish adults. Forty-eight % of them were under drug treatment, and achieved rate of hypertension control rose to 28% as defined by keeping BP at normal levels. Thus antihypertensive treatment among Turks continued to become more widespread and effective. Among participants not subjected to antihypertensive medication, a net decline by approximately 2 mmHg was noted in systolic and diastolic pressures in men. In a logistic regression analysis for prevalent CHD, systolic BP proved to be again a determinant independent from age.

We concluded that the trend of rising mean BP in Turkish adults observed in the 1990s seems to have halted in women and probably reversed in men. Though this positive development needs confirmation in the near future, it is believed that the more widespread use and effectiveness of antihypertensive drug treatment and the newly growing health-consciousness of the people are underlying it. Currently, each person out of every 3 men and 4 women using antihypertensive drugs keeps the BP under control.

**Key words:** Antihypertensive treatment, blood pressure, coronary heart disease, epidemiology, hypertension prevalence

### **Increased P-Wave Duration and P-Wave Dispersion in Patients with Aortic Stenosis**

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P-wave dispersion (PWD), defined as the difference between maximum and minimum P-wave duration, has been reported as being useful for the prediction

of paroxysmal atrial fibrillation (AF). AF is the most common arrhythmia and an important prognostic indicator for clinical deterioration in patients with aortic stenosis (AS). The aim of the present study was to evaluate PWD in patients with AS. The study population consisted of two groups: Group I consisted of 98 patients with degenerative AS (76 men, 22 women; aged  $63 \pm 8$  years) and group II consisted of 98 age and sex matched healthy subjects without any cardiovascular disease. Twelve-lead electrocardiogram was recorded for each subject. The P-wave duration was calculated in all leads of the surface electrocardiogram. The difference between the maximum and minimum P-wave duration was calculated and this difference was defined as PWD. All patients and control subjects were also evaluated by echocardiography to measure the left atrial diameter, left ventricular ejection fraction, left ventricular wall thicknesses, maximum and mean aortic gradients. Patients were also evaluated for the presence of documented paroxysmal AF. Maximum P-wave duration (126 ms) and PWD of group I were found to be significantly higher than those of group II (108 ms). In addition, patients with paroxysmal AF (130 ms) had significantly higher PWD (121 ms) than those without paroxysmal AF. There was no significant difference between two groups regarding minimum P-wave duration. There was no significant correlation between echocardiographic variables and PWD. PWD, indicating increased risk for paroxysmal AF, was found to be significantly higher in patients with AS than in those without it. Further assessment of the clinical utility of PWD for the prediction of paroxysmal AF in patients with severe AS will require longer prospective studies.

**Key words:** Aortic stenosis, P-wave dispersion, atrial fibrillation

### Reviews

### **Research Ethics and Scientific Misconduct in Biomedical Research**

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Scientific research is based upon values such as integrity, honesty, trust and respect for academic, scientific and intellectual achievement. An integrity



of the research study reflects the obedience by scientists to honest and reproducible methods in proposing, performing, evaluating and reporting research. Scientific misconduct is defined as "any practices that seriously deviate from those that are commonly accepted within the scientific community for proposing, conducting or reporting research and ultimately damage the integrity of the research process". "Sloppy research" or questionable research practices include activities which can violate traditions of science, waste time and resources. Scientific misconduct and "fraud" includes mainly deliberate work or action during the application, performing research studies, presentation and/or publication process. The reasons for scientific misconduct or fraud are inadequate or lack of research discipline training and research ethics, Pressure to publish by the department and/or institution, personal ambition for rapid career advancement and academic promotion and desire for acknowledgement or financial gain. There are mainly three categories of approaches for prevention of scientific misconduct: a) education, training and establishment of ethical standards, b) encouraging practices to reduce the pressures predisposing to misconduct and c) investigation of alleged misconduct regarding the management of conflict. None of the sponsors can assure that a grant or contract will yield discoveries or a specific "desired outcome". All the research institutions and academic agencies should establish policies and regulatory guidelines to ensure a prompt organization to allegations of misconduct in science. All inquiries should be conducted within the institution. Whole inquiry should be arranged to ensure the confidentiality of process and investigations should be completed as rapidly as possible, preferably within 3 months.

### **Ethics in Publications: the Rights and Permissions**

*Y. Nişancı*

There is an owner of each product that was produced by intellectual capacity and the owner has

the right to give permission for usage of these productions by others (copyright) or not. Using an intellectually produced material in publications without permission and/or plagiarizing it with the purpose of benefit are crimes. In many countries, as well as in our country special laws preserve the rights of the owners. The most important thing is that people should have the conscientiousness to respect the rights of the owners, instead of bringing about illegal cases.

**Key words:** ethics in publication, copyright, permissions

### **New Trends in Treatment of Heart Failure: Cellular Cardiomyoplasty, Gene Therapy and Nuclear Transfer**

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Heart failure is becoming a major public health problem, and is expected to be the prevailing cardiac disease of the next century. In the majority of patients, heart failure develops as a consequence of coronary atherosclerosis and myocardial infarction. Current therapeutic options for heart failure include medical therapy, of proven but limited benefit, and surgical options, which have either restricted applicability or unproven benefit. Necrosis of cardiomyocytes, and their subsequent replacement by fibrous scar, is an essentially irreversible process. Adult human cardiomyocytes have only a very limited ability to proliferate, and the myocardium has no myogenic stem cells capable of replacing the lost cardiomyocytes. Cell transplantation, gene therapy and nuclear transfer to repair injured myocardium are new approaches in the treatment of cardiovascular disease.

**Key words:** Cellular cardiomyoplasty, gene therapy, heart failure