

Summaries of Articles

Investigations

Survey on Prevalence of Cardiac Disease and its Risk Factors in Adults in Turkey:

1. Description of Methods

A. Onat, G. Şurdum-Avci, M. Şenocak, E. Örnek, R. Özcan

With the purpose of determining the prevalence of heart disease and its risk factors in Turkish adults, a random sample of the population consisting of 3689 persons 20 years of age or older were surveyed in a total of 59 communities spread all over Turkey. The sample was representatively stratified for sex, age, geographic regions as well as the rural-urban distribution. Physical examination of the cardiovascular system was performed and an electrocardiogram recorded in each subject.

Plasma concentrations of total cholesterol, glucose and triglycerides were measured by the portable analyzer Reflotron. Validation of cholesterol values were carried out in a random sample of about 6 % of sera in a reference laboratory, and a high coefficient of correlation ($r=0.90$) was found between results of the two methods. Obesity was evaluated using the body weight index. Minnesota coding was used in the interpretation of the ECGs. This first paper describes the methodology of the newly conducted survey.

Survey on Prevalence of Cardiac Disease and its Risk Factors in Adults in Turkey:

2. Results Obtained in İstanbul

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In a newly conducted survey in Turkey, in which a random sample population of 3689 persons 20 years of age or older were screened for heart disease and its risk factors, the results obtained in the İstanbul province (477 persons surveyed) are herein described. Mean plasma concentration of total cholesterol was relatively low in the general adult population (179.9 mg/dl); 9.5 % of them exhibited values of 240 mg/dl

or over. Fifty-seven percent of men and 35 % of women were regular smokers. Hypertension (as defined by blood pressure of ≥ 160 mmHg and or ≥ 95 mmHg or one under control by treatment) existed in 11.8 % of males and 17.3 % of females. While obesity was encountered in only 5.4 % of men, its prevalence in women was as high as 23.6 % . Known diabetics, participants revealing a fasting blood glucose of ≥ 130 mg/dl or a postprandial value (at 1.5 - 2.5 hours) of over 170 mg/dl comprised 19 persons, indicating a diabetes prevalence of 4 %. Multiple major risk factors were observed in 5.9 % of the population.

The prevalence of cardiac disease in the adult population was 6.1 % (95 % confidence limits, 4 and 8.2), women having a slightly higher ($p>0.05$) incidence. Coronary heart disease led with a prevalence of 4. 8 %, while hypertensive heart disease was noted in 0.6 %, congenital and rheumatic heart diseases in 0.6 percent.

Survey on Prevalence of Cardiac Disease and its Risk Factors in Adults in Turkey:

3. Prevalence of Heart Diseases

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In order to determine the prevalence of heart disease in 29.5 million Turkish adults 20 years of age or older, a survey was conducted in a random sample of 3689 persons living in 59 communities distributed over all the seven regions of the country. In the male adult any cardiac disease was encountered in 57 per mille, and coronary heart disease was noted in 39 per mille, whereas in women any heart disease prevailed more often (69 per thousand) while coronary disease was observed in 33 per mille. Women were twice as frequently affected by hypertensive and rheumatic heart diseases. It was estimated that 1.860.000 Turkish adults were afflicted with heart disease comprising 1.050.000 persons with coronary, 590.000 with hypertensive and 140.000 with rheumatic heart disease.

The prevalence of cardiac disease rose rapidly with age: per thousand population, there were 8 in the age group 20-29, 44 in that of 40-49, and 216 in the age group 60-69. The Black Sea and Marmara regions exhibited highest prevalence in regard to both coronary and total cardiac disease, while Central Anatolia and the Mediterranean regions disclosed lowest prevalence.

Restenosis After Successful Coronary Angioplasty: Koşuyolu Experience

T. Okay, M. Özdemir, N. Çağlar, O. Sancaktar, A. R. Kazazoğlu

The PTCA procedure was performed to 143 patients successfully until end of December 1989. Of these angiographic follow-up was available in 120 (84 %) patients. The mean age was 50.5 ± 8.7 , 128 of these were men; 134 lesions were dilated. 30 patients of this group had to undergo PTCA for the second or third time. Global restenosis rate was 35 % (42 patients). Lesion restenosis rate was 35.8 %. The restenosis rate in the 111 patients with first PTCA procedures was 33.3 % (39 % in the left anterior descending, 20 % in right coronary and 15.4 % in left circumflex artery, $p < 0.001$). It was 61.6 % in the proximal part of the anterior descending. In 80 % of the patients restenosis was seen in the first three months after the PTCA.

Surgical Treatment and Long-term Follow-up in Ventricular Septal Defect Associated with Aortic Regurgitation

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Between 1973 and January 1990, 14 patients, ages ranging between 4-18 years (mean: 9.3 ± 3.8) underwent open heart surgery with the diagnosis of ventricular septal defect and aortic insufficiency. The ventricular septal defect was subpulmonic in 8 and intracristal in 6 patients. The aortic regurgitation was minimal in 8, moderate in 4 and severe in 2 cases.

The surgical procedure was closure of ventricular septal defect alone in 9 patients, while in 3 patients aortic valvuloplasty was added. In 2 patients, ventricular septal defect closure was combined with aortic

valve replacement. One of the latter patients was lost on the eighth postoperative day because of arrhythmia. Two patients subjected to valvuloplasty were reoperated; one 4 months postoperatively because of increasing aortic regurgitation and the other 8 years later due to recurrent ventricular septal defect and aortic regurgitation. During a mean follow-up of 10.4 years, 8 patients remained free of aortic regurgitation while there has been no increase in the minimal aortic insufficiency in the other 4 patients. One patient in whom aortic valve has been replaced is living in good condition 6 years postoperatively.

Postinfarction Ventricular Septal Defect

A. Sarıtaş, H. T. Keçeligil, B. Mavıtaş, Y. Zorlutuna, O. Taşdemir, K. Bayazit

Between January 1983 and January 1990, six patients (aged 35 to 69 years) underwent surgical repair of postinfarction ventricular septal defect. The operations were performed 3 to 75 days after the myocardial infarction. Our technique consisted of a transinfarction incision in the left ventricle, placement of a Teflon patch that closed the postinfarction ventricular septal defect and covered and revascularisation of the obstructed coronary vessels. Hospital mortality rate was 16.7 %. In the postoperative period, a hemodynamically nonsignificant residual VSD was found in one patient.

Dilated Cardiomyopathies in Childhood: Predictive factors of prognosis

N. Özbarlas, A. Bilgiç, S. Özkutlu, A. Çeliker, M. Saraçlar

The clinical and epidemiological characteristics of 105 children between 15 days and 15 years of age with dilated cardiomyopathies examined at the Hacettepe University Pediatric Cardiology Unit between 1984 and 1989 were reviewed. Prognostic factor and results were determined after a mean follow-up period of 24 ± 5 months. The improvement rate was 38%, the clinical status was stable in 41%, while 9% of the patients deteriorated and the fatality rate was 12%. Consanguineous marriage, siblings with cardiomyopathy, the presence of arrhythmia in the initial electrocardiographic evaluation were determined to be poor prognostic factors while onset of symptoms below two years of age were good prognostic signs.

Plasma Beta-Thromboglobulin in Acute Myocardial Infarction

E. Acartürk, S. Paydaş, N. Erbek, A. Birand

Platelet activation and its clinical importance were evaluated with plasma beta-thromboglobulin (BTG) measurements in 15 patients with acute myocardial infarction (AMI). Thirty healthy subjects were included in the study as controls. Blood samples were taken for BTG measurements on the 1st, 2nd, 3rd, 4th, 7th and 14th days of AMI. The mean BTG values in all days were higher than the mean control value ($p<0.005$). The highest mean value was obtained on the 3rd day. BTG values showed variations from day to day and 2 patients had normal values in all samples. Clinical findings and plasma BTG values failed to show any relationship. It was concluded that platelet activity and its degree, as assessed by plasma BTG measurements, lack clinical importance in patients with AMI.

Long-term Follow-up of Patients with Antitachycardia Pacemakers

Y. Nişancı, Ö. Özsaruhan, K. Adalet, S. Umman, M. Meriç, D. Atılgan, N. Koylan, T. Gören, G. Ertem, R. Özcan

As an important therapeutic alternative for treatment of tachyarrhythmias, we implanted 6 antitachycardia pacemakers in 5 patients with drug resistant SVT (4 patients) and VT. Three of the patients were male and mean age was 29.8 years (range 20-43). Long-term follow-up of the patients (mean 44.8, range 12-85 months) showed that pacemakers are effective in all patients from the points of clinical and laboratory evaluations, and antiarrhythmic drug consumption (2.8/day/patient versus 0.2). Although oversensing and proarrhythmic effect were seen in only one patient, it was managed successfully by reprogramming.

Results of Transvenous Endomyocardial Biopsies

Y. Nişancı, U. Deligönül, C. Alatlı, T. Erbeni, S. Umman, K. Adalet, N. Koylan, T. Gören, D. Atılgan, M. Meriç, G. Erseven, G. Ertem

We applied transvenous endomyocardial biopsies in 16 patients with the clinical diagnosis of cardiomyo-

pathy in 11, ventricular arrhythmias in 3 and, myocarditis in 2. Thirteen patients were male and the mean age was 35.1 ± 13.4 years. We found some diagnostic value of the procedure in 79 % (11/14) and 67 % (8/12) by light and electron microscopies, respectively, of those patients in whom sufficient biopsy material was available. We discussed the diagnostic value and current status of the endomyocardial biopsy.

Non-Invasive Estimation of the Degree of Aortic Regurgitation by Color-coded Doppler

S. Göksel, T. Kural, M. İnce, C. Özer

An attempt was made to determine whether aortic regurgitation could be detected and its severity evaluated qualitatively by the color-coded Doppler system in 50 patients who underwent cine-aortography. Aortic regurgitant flow was imaged as a jet spurting out from the aortic orifice into the left ventricular outflow tract in diastole. The sensitivity of the technique in the detection of aortic regurgitation was 98 % as compared with that of cine-aortography. Undetected aortic regurgitation in a case was mild.

On the basis of the farthest distance reached by the regurgitant flow signal from the aortic orifice, the severity of regurgitation was graded on a four point scale and these results were compared with those of angiography. A significant correlation ($r=0.638$) was found between Doppler imaging and angiography in the evaluation of severity of aortic regurgitation. Thus, noninvasive semiquantitative evaluation by color-coded Doppler system appears to be a promising clinical technique.

2-Dimensional and Doppler Echocardiographic Evaluation of Patent Ductus Arteriosus

S. Atalay, M. Saraçlar, S. Özkutlu

Thirty four cases with the clinical impression of PDA were studied by M-mode, 2-dimensional and Doppler echocardiography techniques. The age range was between 8 months and 16 years. Cardiac catheterization and angiography were performed in 15 cases.

Ductus arteriosus was clearly shown by 2-D echocardiography in 24 cases. Continuous flow was demonstrated by Doppler echocardiography in 32 patients. This flow was in maximal intensity in 21 patients whose pulmonary artery pressures were within normal limits. The intensity of flow was decreasing in diastole in 10 patients whose pulmonary artery systolic pressures were between 50-95 mmHg. In one case with pulmonary artery pressure a systemic level spectral pattern of bidirectional shunt was recorded. We conclude that 2-dimensional and Doppler echocardiography are sensitive and specific methods for the diagnosis of PDA.

Case Reports

Kearns-Sayre Syndrome Complicated by Widespread Skeletal Muscle Involvement: Case Report

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Kearns-Sayre syndrome is a very rare disease characterized by ophthalmoplegia, retinal pigmentation and heart block. Previous studies have revealed ultrastructural changes in muscles not related to the eye, but the clinical consequences of these changes have not been described in detail. The purpose of this case report, concerned with a woman presenting with heart block and widespread skeletal muscle involvement at the age of 27, in whom the findings of Kearns-Sayre syndrome had appeared at the age of 12, is to contribute to the knowledge about this dis-

ease, to discuss a hypothetical model concerning its pathogenesis, consisting of a combination of the findings of previous studies, and to emphasize its skeletal muscle manifestations.

Left Circumflex Coronary Artery Arising from the Noncoronary Sinus

N. Çağlar, A. R. Kazazoğlu, H. Gök, I. Dindar

Many types of coronary artery anomalies have been detected and, most frequently, anomalies in left Cx artery have been defined. In this interesting case, in addition to the presence of three major coronary arteries from each of the three coronary sinus, the left circumflex artery originated from the non-coronary sinus which is quite rare.

Shone Syndrome: Case Report

İ. Durmaz, S. Büket, A. Alayunt, M. Özbaran, B. Dişçigil, F. Okur, Y. Atay

Shone syndrome is a congenital cardiac malformation, including supra-avalvular mitral ring, parachute mitral valve, subaortic stenosis and aortic coarctation. This syndrome was described by Shone in 1963, and it is not a common anomaly. Generally diagnosis of these patients are made during the infantile period or childhood and patients fail to reach adult age due to cardiac failure. In this report a 15-year-old girl with Shone syndrome has been presented. She underwent initially a coarctation repair, and mitral valve replacement was performed two weeks later.