856
Diagnostic value of ecofree space around the aortic prosthesis for infective endocarditis.
L. Iliuta 1, C. Savulescu 2, H. Moldovan 1, D.P. Gheorghiceanu 1, R. Vasile 1, D. Filipescu 3, C. Macarie 3, V. Candea 1, D. C. Iliescu Heart Institute, Cardiology, Bucharest, Romania; 2Fundeni Clinical Institute, Internal Medicine, Bucharest, Romania; 3CC Iliescu Heart Institute, Anaesthesiology, Bucharest, Romania.

Background: In spite of frequent misinterpretation of ecofree space around the aortic prosthesis revealed by transoesophageal echocardiography as aortic abscess, there are no studies which it was evaluated its diagnostic value for infective endocarditis.

Aim: Assessment of the diagnostic significance for infective endocarditis of the ecofree space revealed by transoesophageal echocardiography in patients with aortic prosthesis.

Material and method: We have taken into study 123 patients with aortic prosthesis who underwent transoesophageal echocardiography. Taken into consideration the findings on transoesophageal echocardiography, there were identified two groups: Group A: 68 patients with ecofree space around aortic prosthesis (42 patients with circular ecofree space between the aortic wall and prosthetic annulus and 26 patients with extraluminal ecofree space separated from the aortic lumen by aortic wall) and Group B: 55 patients without ecofree space around the aortic prosthesis. Statistical analysis used SYSTAT and SPSS programs for correlation coefficient calculations and for simple and multiple linear regression analysis.

Results: 1. Among patients with ecofree space around aortic prosthesis, only 8 (11.76%) developed an infective endocarditis according to Duke criteria. Among these, in 2 patients we have revealed circular ecofree space and in the other 6 patients we have revealed extraluminal ecofree space. Among patients without ecofree space around the aortic prosthesis, only one patient was diagnosed with infective endocarditis. 2. The extraluminal ecofree space is significantly correlated with infective endocarditis according to the equation y=1.7x+5.2, p<0.001, R²=0.71.

3. There was a significant correlation between the presence of extraluminal ecofree space revealed by transoesophageal echocardiography and annular abscess confirmed intraoperatively in patients who underwent aortic valve replacement for infective endocarditis on aortic prosthesis and haemodynamic significant paravalvular leak (R²=0.28, p<0.0001).

Conclusions: 1. The circular ecofree space is frequently revealed by transoesophageal echocardiography around aortic prosthesis and it has a low specificity for infective endocarditis. 2. The extraluminal ecofree space has an important diagnostic value and an increased specificity for abscess of the aortic root, its presence being an indication for early surgical intervention in these patients.

857
Role of transoesophageal echocardiography in the differential diagnosis of aortic ulcers.
Z. Gomez Bosch 1, A. Evangelista 2, G. Avegliano 2, M.T. Gonzalez-Alujas 2, A. Salas 2, M. Sebastì 2, R. Dominguez 3, J. Soler-Soler 2, Hospital Valle de Hebron, Cardiology, Barcelona, Spain; 2Hospital Valle de Hebron, Cardiology, Barcelona, Spain.

Prognosis and therapy of penetrating aortic ulcers (PAU) vs ulcer-like images (ULI) differ greatly, however, the differential diagnosis between both entities by imaging techniques is not well established. The aim of the present study was to assess the role of TEE in the differential diagnosis of aortic ulcers (AU) defined by CT or MRI.

Twenty-five patients (23 men; 2 women; age range: 50-82y), were diagnosed of aortic ulcers (13 PAU and 12 ULI) during an acute aortic syndrome (n=20) or incidentally (n=5). 22 CT-classified: 9 PAU, 5 ULI, 4 non-specified AU and 4 non-diagnosed, 10 MRI revealed 3 PAU, 3 ULI and 4 non-specified AU. TEE agreed with CT in 10 cases (45%), ruled out PAU in 3 and classified the AU type in 4. TEE agreed with MRI in 5, ruled out PAU in 1 and classified the ulcer type 4. Therefore, TEE ruled out PAU diagnosed by CT or MRI in 11 cases, showing ULI localised dissection in intramural haemorrhage evolution.

Conclusions: TEE is highly useful in the differential diagnosis of penetrating aortic ulcers and ulcer-like images diagnoses by CT or MRI. Some penetrating aortic ulcers remained undetected by conventional CT; thus, TEE is mandatory in aortic ulcer assessment.

858
Transoesophageal echocardiographic study in 50 patients affected by rheumatoid arthritis.
M. Turci 1, G. De Biasio 2, M. Lleros 2, L. Dellino 2, G. Bigatti 2, D. Ali Youssif 1, F. Alpsi 2, P. Sarzi-Puttini 2, Istituto Galeazzi University of Milan, Servizio di Cardiologia, Milan, Italy; 2Istituto Galeazzi, Servizio di Cardiologia, Milan, Italy; Hospital L.Sacco, Rheumatology Unit, Milan, Italy.

Objectives: To determine the incidence and type of heart lesions in rheumatoid arthritis (RA), we coupled transthoracic (TTE) with transoesophageal echocardiography (TEE), which is more sensitive and more accurate.

Methods: 50 unselected RA patients (41 F and 9 M aged 25 to 73 years, with a mean age of 54.6 ± 14.4 years) free of known progressive heart disease underwent a chest radiography, an electrocardiogram, laboratory tests, and TTE coupled with TEE. Results were compared with those in age and sex-matched patients who were free of rheumatic diseases and underwent TEE to investigate different clinical disorders.

Results: Mitral regurgitation (MR) was evidenced in 40 cases (80%). Among the controls, only 15 (30%) had MR (P<0.001). Aortic regurgitation was found in 15 cases (30%), versus control group (P<0.001). Systolic dysfunction of the left ventricle was diagnosed by TEE in 5 cases and on an aortic valve in 2. No significant correlations linking cardiac lesions to cleral or laboratory features of RA was observed.

Conclusions: Cardiac involvement, particularly of the mitral valve, was extremely common in RA patients. Diastolic dysfunction was rarely observed but systolic function was normal. No correlation was observed between cardiac abnormalities, disease severity and treatments. TEE was useful to identify echo-generating nodules and calcifications of cardiac valves.

859
Is it necessary to perform transoesophageal echocardiography before electrical cardioversion in patients with atrial fibrillation? An alternative strategy.

Introduction: It is well known that patients (P) suffering from atrial fibrillation (AF), develop progressive dilatation of the left atrium and they have an increased risk for thromboembolic events. The electrical cardioversion (EC) in P with AF of more than two days' duration is performed either directly or following anticoagulation by transoesophageal echocardiography (TEE), either 3-4 weeks later after receiving anticoagulant therapy (AT) and without prior TEE, in order to diminish the possibility of thromboembolism. The purpose of this study is to point out the safety of an alternative therapeutic procedure in P with AF, which is the EC of the AF after three weeks' AT with preceding TEE, so as to exclude the existence of thrombi.

Methods: 128 P (70 males and 58 females, mean age 62.8 years) with AF of prolonged duration, lasting from one month to one year, received AT with acenocoumarol for 3-4 weeks to achieve an international normalized ratio (INR) of 2.2 to 3.0. TEE was performed after this period and EC followed, if no thrombus was found. If sinus rhythm was restored, AT was administered for the next 3-4 weeks. If a thrombus was detected, AT continued for other 3-4 weeks and the EC followed, only when the thrombus had been dissolved, otherwise the EC was cancelled.

Results: The TEE disclosed a left atrium thrombus in 12 P (9.38%) and the EC was postponed. Finally, EC was not performed in 6 out of all patients (4.72%), 122 P (95.31%) underwent EC. The EC failed in 14 P (10.93%) and recurrence of the AF (95.31%) underwent EC. The EC failed in 14 P (10.93%) and recurrence of the AF (95.31%) underwent EC. The EC failed in 14 P (10.93%) and recurrence of the AF (95.31%) underwent EC. The EC failed in 14 P (10.93%) and recurrence of the AF (95.31%). The heart rhythm remained sinus for a period of one month to one year in 61 P (47.66%), Thromboembolic events, cerebrovascular incidents, transient ischemic attacks, or major/minor bleeding complications were not noticed.

Conclusions: High percentage of patients (one out of ten) develops left atrium thrombosis before the electrical cardioversion, despite of the anticoagulant therapy they receive. The described approach in preventing thromboembolic events, which may accompany the electrical cardioversion of atrial fibrillation, seems to be absolutely safe, causes no complications and, consequently, could be a strategy of choice especially on patients of high thromboembolic risk.