

Topic 32 – Valvular heart disease – B

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0118

Right ventricular dysfunction in severe tricuspid regurgitation

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Introduction: The relationship between right ventricular function and severe tricuspid regurgitation is intricate: severe TR can lead to right ventricle dysfunction and changes in right ventricle morphology can aggravate a tricuspid regurgitation.

Aim: Establish a correlation between regional and global right ventricular (RV) function parameters and TR severity.

Methods: Forty consecutive patients with TR and left ventricle valve disease were enrolled prospectively (mean age: 54±16 years; 23 males), TR was evaluated according to EACVI recommendations by PISA method. Regional right systolic function assessed by tricuspid annular plane systolic excursion (TAPSE) and systolic tissue Doppler velocity measured at the lateral tricuspid annulus (S') and global RV function assessed by fractional area change (FAC) were measured for all patients. Patients were divided into two groups according to the severity of TR.

Results: Ten patients (25%) had severe TR (G1) and 30 patients (75%) had mild or moderate TR (G2). FAC was lower in G1 compared to G2 (24.7±7.4% vs 40.4±10.1%, p<0.0001; respectively). TAPSE was 14.3±3.6mm in G1 vs 17.7±2.6mm in G2, p*0.002 and S' was 9.7±1.0cm/s in G1 vs 11.7±1.4 cm/s in G2, p<0.0001. There was a significant negative correlation between EROA and FAC, TAPSE and S' with r = -0.58, p<0.0001; r = -0.48, p= 0.001 and r = -0.69, p<0.0001 respectively.

Conclusion: Regional and global RV function are impaired alike in severe TR.

0171

Long-term outcome of possible and definite infective endocarditis in a population-based cohort study

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Data on long term prognosis of infective endocarditis (IE) are scarce. In addition, there are no data on prognosis of possible IE compared to definite IE whilst their management is the same in guidelines.

Methods: We studied 616 consecutive patients with IE diagnosed at a tertiary center between 1990 and 2012. They were classified into 2 groups as defined by modified Duke endocarditis criteria: Group I (n=266, 43%), patients with possible IE; and Group II (n=350, 57%), patients with definite IE.

Results: Compared to patients with definite IE, patients with possible IE had similar clinical features for age (64±16 vs 66±15; p=0.08), male gender (77% vs 73%; p=0.23), prosthetic valve (22% vs 19%, p=0.27) and most important comorbidities. There was no identified microorganism in 23 % of the patients with possible IE (vs 0%, p<0.0001) and only 35% had a major echocardiographic criteria (vs 100%, p<0.0001). There was no significant differences in rates of pacemaker (9% vs 10%, p=0.65), aortic (60% vs 59%, p=0.76) and mitral locations (40% vs 37%, p=0.46) in group I and group II. Rate of valve surgery during the initial hospital stay was less frequent in patients with possible IE (15% vs 28%, p<0.0001). There were 245 deaths during follow up which was 4.8±5.8 years and patients with possible IE had a lower risk of death (Hazard ratio [HR] 0.71, 95%CI 0.55-0.93, p=0.01). In the whole population, older age (HR = 1.03, 95%CI 1.02-1.05, p<0.0001), meth-

icillin-resistant *Staphylococcus aureus* IE (HR=2.29, 95%CI 1.13-4.61, p=0.02) and major echocardiographic criteria (HR=1.58, 95%CI 1.12-2.24, p=0.009) were the only predictors of long-term mortality.

Conclusion: Using the theoretical same therapeutic strategy as proposed in current guidelines, patients with possible IE defined by modified Duke endocarditis criteria have a significantly better prognosis than those with definite IE. This might be explained by the worse prognosis when major echocardiographic criteria are found.

0275

Diagnosis, complications and management of infective endocarditis: experience of Tunisian military hospital

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Background: Infective endocarditis (IE) is lethal if not aggressively treated with antibiotics alone or in combination with surgery. The epidemiology of this condition has substantially changed over the past four decades, especially in industrialized countries. Once a disease that predominantly affected young adults with previously well-identified valve disease – mostly chronic rheumatic heart disease – IE nowadays tends to affect older patients and new at-risk groups, including intravenous-drug users, patients with intracardiac devices and degenerative valvular heart disease...

Objectives: We aimed to evaluate demographic data, underlying cardiac abnormalities, clinical profile, microbiological features, treatments and complications of IE.

Methods: A retrospective study of all cases with the diagnosis of definite endocarditis according to Duke Criteria admitted to The Tunisian Military Hospital between January 2001 and December 2007.

Results: The study included 53 patients (32 males and 21 females; mean age 44.5 ± 16.5 years). Infective endocarditis developed on a native valve in 48 patients (90%), a mechanical prosthetic valve in 5 patients (5%). Rheumatic heart disease in 26 cases (49%) was the most common preexisting valvular abnormality in native valve endocarditis. The mitral valve was the most commonly affected valve 23 (43.4%). Fever occurred in 50 (94%) of the cases. Trans-thoracic and/or trans-esophageal echocardiography showed vegetation and/or abscess in 33 patients (62.2%). Streptococci in 17 cases (32%) and Staphylococci in 13 cases (24%) were the most common causative agents. Twenty-six patients (49%) underwent surgical treatment. Cardiac complications occurred in 13% of cases, vascular complications in 18% of cases, cerebrovascular accidents in 15% of cases and septic metastatic complications in 15% of cases.

Conclusions: IE usually occurred on rheumatic heart disease. Its diagnosis is based on hemocultures and echocardiography. There are deficiencies in applying prophylaxis, which is a justification for the improvement of patient management through education.

0294

Extravascular volume by cardiac MR T1 mapping accurately predicts histologically measured fibrosis in valve disease

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Background: Valvular heart disease is associated with left ventricular hypertrophy, remodeling and development of diffuse interstitial fibrosis. So far, histopathology remains the gold standard for evaluating diffuse myocardial fibrosis. Gadolinium enhanced Cardiac Magnetic Resonance (CMR) T1 mapping is new method which allows to quantify the myocardial extracellular volume (ECV). Hence, it was suggested that this ECV measurements allows to non-invasive estimate diffuse fibrosis. However validations studies are scarce. Therefore the aim of this study was to validate measurements