Background: Disturbances in neuroendocrine and cardiac autonomic activity have an important role in the pathogenesis of congestive heart failure (CHF). Analysis of heart rate variability (HRV) has been used extensively as a noninvasive method to study autonomic function in patients with CHF. Recently, there has been shown that several proinflammatory cytokines, among them interleukin-6 (IL-6), may contribute to progressive CHF syndromes. The aim of the study was to determine correlation between autonomic dysregulation assessed by HRV analysis and IL-6 levels in patients with CHF.

Methods: We studied 66 patients admitted for decompensated CHF (NYHA H-IV, mean age 61±12 and 20 healthy persons (mean age 53±15). 24-hours Holter recordings and IL-6 measurements were performed in all subjects. In 35 CHF pts atrial fibrillation during Holter recordings were observed. Time- and frequency-domain HRV parameters (SNN50, RMSSD, LF, HF, LF/HF) were measured in the ELISA kits. IL-6 mean level in CHF pts was significantly higher than in control group (28.45±4-30.3 vs 3.75±0.14 pg/ml, p<0.001). Determination correlation between CHF pts with sinus rhythm and those with atrial fibrillation (p=ns). IL-6 levels were observed both in the CHF pts with sinus rhythm and those with atrial fibrillation (r=0.32, p<0.03). Frequency-domain HRV parameters were lower in CHF pts, whereas time-domain parameters (SNN50, RMSSD) did not differ significantly in comparison with control group. IL-6 inversely correlated with LF/LF (r=0.35, p=0.001), LF/HF (r=0.62, p=0.006), TP (r=0.5, p=0.02). No correlation was found between IL-6 and SNN50, RMSSD and HF measures.

Conclusions: decreased spectral HRV parameters were associated with increased IL-6 levels in patients with decompensated heart failure. Mechanism responsible for this association has been determined.

817 Cardiology Audit and Registration Data Standards (CARDS) electrophylographic project - standards after pilot phase to test for feasibility


1Dublin 1, Ireland; 2Royal College of Surgeons, Dublin, Ireland; 3Mayo ISIMIRCA University Hospital, Cork, Ireland; 4Royal Cyclonic Hospital, Cork, Ireland; 8Cork University Hospital, Cork; 9Thoracancer, Erasmus MC, Rotterdam, Netherlands; 10Hospital Universitario de Getafe, Cardiology Department, Madrid, Spain

The CARDS project involved collaboration between the European Society of Cardiology, the Department of Health and Children in Ireland and the Irish Cardiac Society, with support from the European Union to develop data standards for use in cardiology practice in Europe. In relation to cardiac electrophysiology, three interventional treatments were identified as targets for agreement of data standards, viz. ablation procedures, pacemakers and implantable cardioverter defibrillators. Planning started in June 2003 and work continued during Ireland’s presidency of the European Union. The cardiology electrophysiology expert committee had to consider data standards for the three interventional treatments. At the CARDS conference in Cork, Ireland in May 2004 the draft data standards were presented and agreement was reached. Across the three data standards, many field-headings and fields are common, with relevant additional data sought in each. Each field allows only one option as a response. In many cases this is simply formatted as choosing between the options of “yes” or “no.” In other fields an exclusive option is sought, for example detailing the specific arrhythmia indication.

The pilot process involved applying the data standards in clinical practice to test for clarity and feasibility. In doing this, members of the expert committee used an Access database and/or paper format of the data standards. Innovations in the CARDS standards were shown to be feasible and relevant. These include documenting pacing configuration (including biventricular) rather than pacing mode, documenting pre-procedure QRS duration and including fields for all of the known navigation and ablation systems. Some subtle modifications were also made to the data standards, including alterations in layout and definitions.

As a consequence of the pilot study, the data standards have been found to be clear, easy to use and feasibility has been confirmed. The data standards and accompanying descriptive information have now been published and are being disseminated by the ESC, which has taken stewardship of the CARDS initiative. The data standards are available at www.escardio.org/knowledge/eohs/registries/CARDS.htm.

818 Changes of platelet parameters during electrophysiologic study with consequent catheter ablation

P. Parizė 1, I. Laimaš 2, J. Maly 3, M. Pecka 3, M. Hodka 2, J. Bukas 2, T. Strasny 4, M. Pleskot 2, J. Duda 2

1Faculty Hospital, 1st Dept. of Internal Medicine, Hradec Králov ; 2University Hospital, 1st Dept. of Internal Medicine, Hradec Králov; 3University Hospital, 2nd Dept. of Internal Medicine, Hradec Králov; 4Medical Faculty, Charles University, Dept. of Medical Biophysics, Hradec Králov, Czech Republic

Background: pathophysiological mechanisms of the thrombogenicity of radiofrequency catheter ablation (RFA) are still unclear. The aim of the study was to investigate platelet parameters during the electrophysiological study (EPS) with consequent RFA.

Methods: 63 patients (37 F, 26 M, 47±14 years) were studied prospectively. Indications for EPS and RFA were supraventricular tachycardias with the arrhythmogenic substrate located in the right atrium. Blood samples were drawn 24 hours before the procedure (T-1), at the beginning of the procedure (T0), at the end of EPS (T1), 30 minutes after completion of RFA (T2), and 24 hours after the procedure (T3). The platelet count (PLT) and parameters (PCT - plateletcrit, MPV - mean platelet volume, PDW - platelet distribution width) were measured. To study platelet activation the circulating platelet aggregates index (CPAI) was used.

Results (see Table 1): the number of platelets was significantly decreased (-13.7%) before EPS, and significant platelet activation was observed before the procedure opposite to the physiological values (CPAI 1.0±0.1), without significant changes during the procedure.

Conclusion: our results showed the significant platelet consumption before and during EPS. Platelet activation was observed even before the