This study aims to evaluate the efficacy of repeated external ± internal EC in such patients. In case of persistent AF after a first external EC, a repeated external EC was performed. After the inefficiency of 2 external EC, internal cardioversion was performed.

Methods: Patients with persistent AF, after inefficient external EC and oral pretreatment with amiodarone were included. After a mean of 3 months, repeated external ± internal EC was proposed in order to recover sinus rhythm (SR). These patients were compared with a control group, sex and age matched, also treated with amiodarone but in whom the external EC was successful at the first attempt.

The 2 groups were analyzed in a case-control study. We analyzed the rate of successful external EC after the 2 procedures in the AF group. The recurrence rate of AF was analyzed after one year in both groups.

Results: Twenty patients got unsuccessful external EC (mean age=64.1 years). There were 40 patients in the control group (mean age=67.1 years). External EC was repeated after a mean of 3.5±5.4 months. No patient needed internal EC. After one year, there was no difference in the recurrence rate of AF in both groups (35% vs. 27%; p=0.244, in studied control groups, respectively).

Conclusion: Repeated external EC allows SR recovery in all the patients with AF under long term oral amiodarone, after a first unsuccessful external EC. The AF recurrence rate after one year was similar to patients in whom the first attempt was successful at once.

0346

Circadian behavior of RR ventricular tachycardia cycle stability in heart failure ICD recipients

Athanasiou G, Manolis, Kostas Kouvelas, George Manolis, Chris Maniotis Hellenic Red Cross Hospital of Athens, Cardiology, Athens, Grèce

Aim: of the study was to evaluate the possible existence of a nightmare modulation of VTCL stability in ICD recipients.

Method: We evaluated 45 ICD pts with 104VT episodes occurred both during day (80) and night (24) time in a FU period of 5±3years. As index of VTCL stability we considered the coefficient of variance (CVRR=SD/Mean RRX100) of the last 5-10 consecutive stored normal RR intervals prior to the VT.

Results: During day-night, the VTCL was 340±29ms and 352±45ms (pNS) and the CVRR was 2.83±0.52 and 3.36±0.68(p=0.017). Among all patients, 89% have experienced at least 1 nightmares.

Conclusions: The VTCL is less stable during night compared to the day time, in pts with DCM. A possible explanation is that, the sympathovagal nightmare alteration modifies the electrophysiological properties of the arrhythmogenic substrate. The clinical significance of this study is towards programming the ICD parameters.

0364

Prevalence and prognosis role of wide QRS and of QRS “narrower than normal”

Elodie Lematte, Philippe Maury, Jean Bernard Ruidavet, Anne Rollin, Alexandre Duparc, Pierre Mondoly, Christelle Cardin, Marie Sadron, Marc Delay, Jean Ferriere CHU Toulouse Rangueil, Cardiologie, Toulouse, France

Introduction: Very narrow QRS has been described whose prevalence and prognosis relevance in the normal population is unknown.

Methods: 546 healthy men between 50 and 60 yo (group 1) and 373 similar patients with coronary artery disease (368 men, EF < 50% in 40%) (group 2) underwent signal averaged ECG allowing precise measurement of QRS duration. All cause mortality was determined after 17±3 years follow-up.

Results: Mean QRS duration was 97±13ms for group 1 and 103±16ms for group 2. 85 group 1 subjects (16%) had QRS < 85ms and 23 (4%) had QRS >120ms. 44 group 2 patients (12%) had QRS < 85ms and 44 (12%) had QRS >120ms. QRS were larger in case of lower EF, lack of previous angioplasty and multivessel disease.

All cause mortality in group 1 was 10.4% (57/546) 6/85 in case of QRS <85ms (7%) and 2/23 (9%) in case of QRS >120ms (p=ns compared to normal QRS duration). HR for all-cause mortality in case of QRS <85ms was 0.75 (95% CI 0.32-1.76, p = 0.52) and 0.86 (95% CI 0.21-3.53, p = 0.84) for QRS >120ms.

All cause mortality in group 2 was 29% (109/373): 7/44 in case of QRS <85ms (16%) and 22/44 (50%) in case of QRS >120ms (p=0.002 when compared to normal QRS duration). Adjusted HR for all-cause mortality in case of QRS <85ms was 0.65 (95% CI 0.29-1.45, p = 0.29) and 1.73 (95% CI 1.02-2.94, p = 0.05) for QRS >120ms.

Late potentials (LP) were present in SA-ECG in 116 group 1 subjects (21%). LP were present in 100 group 2 patients (27%) and were significantly related to multivessel disease, altered EF, lack of revascularization or of angioplasty. LP were more frequently observed in case of QRS >120ms in both groups. LP were not related to all-cause mortality in both groups.

Conclusion: QRS “narrower than normal” (< 85ms) can be observed in a significant proportion of healthy males between 50 and 60 years old and in similar patients with ischemic heart disease. In opposition to QRS >120msec which are independently related to a higher all-cause mortality in coronary artery disease patients, QRS <85ms were not linked to prognosis in any group.

0382

Transvenous extraction of pacing and defibrillator leads: a high-volume single centre experience

Hager Reilk, Peggy Jacon, Alix Martin, Pascal Defaye CHU Grenoble, Cardiologie, La Tronche, France

Background: Following the exponential growth of cardiac device implantation, there is an increase of lead extraction indications. In the meantime, the tools, the indications, and the outcomes of those procedures continue to progress.

Objectives: The purpose of this study was to examine contemporary indications, outcomes, and complications of transvenous lead extraction in a large series of patients at a high-volume lead extraction center.

Methods: We performed a retrospective cohort study of consecutive patients undergoing lead extraction at a single, high-volume center. Our extraction strategy consists in manual traction, locking stylet traction, laser use followed by inferior approach in case of failure.

Patient and lead characteristics and the indications, outcomes, and need for laser assistance were analyzed.

Results: From January 2002 to December 2013, a total of 751 chronic endovascular leads were removed from 391 patients. The mean age was years 68 (range 13-98). Seventy-five percent of patients were males. Median implantation duration was 5.5 years. Indications for extraction were systemic infection (33.3%), pocket infection (25.1%), mechanical lead failure (32.7%), and upgrade of device system (6.1%) due to thrombosis of venous access.

Extraction was successful in 97.7% of patients with complete removal. Laser assistance for extraction was required in 259 patients (66.2%), completed with an inferior approach in 38 patients (9.7%). Complications were death in 2 patients (0.5%), bleeding in 21 patients (5.4%), pericardial tamponade in 8 patients (2%).

In univariate analysis, laser-assisted lead extraction was required more frequently for leads that were implanted more than 36 months after implantation (p<0.001), as well as for passive leads compared to active leads (p=0.04).

Conclusion: Lead extraction can be safely and successfully performed in the majority of patients, with limited life-threatening complications.

0406

Anticoagulation therapy is frequent in patients with silent AF detected in cardiac devices memory, despite of current guidelines: a monocentric registry

Rim El Bouazzaoui, Sarah Thomann, François Massin, Frederic Cransac, Thien Thi Cung, Jean-Christophe Macia, Jean-Luc Pasquié, Jean-Marc Davy CHU Montpellier, Cardiologie et maladies vasculaires, Montpellier, France

Introduction: More and more frequently, silent atrial fibrillation (AF) events are detected in intracardiac electronic device (ICED) memory (“infra-
therapy as a stroke prevention strategy. In MOST trial, AHRE were seen in almost 50% of patients treated for sinus node dysfunction and were associated with an increased risk of stroke (1.69% per year if CHADS score>2) in ASSERT study. Nevertheless currently there are no antithrombotic recommendations for these patients. We tried to describe the different therapeutic alternatives in usual practice.

Materials and methods: We started a prospective registry of patients with silent AF detected in DDD or CRT PMK/ICD of all constructors. Inclusion criteria were: age > 18 y, AHRE diagnosed by device algorithms and > 6 minutes duration, confirmation by atrial endocavitary electrogram. We excluded patients with a previous history of “clinical AF” or valvular AF. The antithrombotic strategy was decided by the referring physician.

Results: From November 2013 to May 2014, 43 patients were included. The median age was 77 years old. 26 patients (60%) had a DDD PMK (10 for sinus node dysfunction (23%), 15 for AV block (35%), 1 for obstructive CMP), 10 patients (23%) a DDD ICD (6 (14%) for primary prevention and 4 (9%) for secondary prevention) and 7 patients a CRT-D (16%). The median CHADS2 score was 2, the median CHADS2VASC score was 4 (mean respectively 2.36 and 3.56): 5 patients had a history of embolic event (11%). Only 10 patients (23%) a DDD PMK (6 (14%) for primary prevention and 4 (9%) for secondary prevention) and 7 patients a CRT-D (16%). The median CHADS2 score was 2, the median CHADS2VASC score was 4 (mean respectively 2.36 and 3.56): 5 patients had a history of embolic event (11%). Only 28 patients (65%) were on anticoagulation therapy: 15 (35%) antivitamin K (1.81±1.92 vs 2.15±2.07%). At the end of FU, as expected the percentage of RV pacing was significantly higher in group 2 (78.9±31.6 vs 7.9±17.4%). The non-inferiority hypothesis was validated (p=2.572e-06 for a delta = 4.785). AF burden was not different between the 2 groups.

Conclusion: Most of patients in this study received an anticoagulation therapy as a stroke prevention strategy.

Abstract 0406 – Figure: score distribution of patients with silent AF

0446

Septal right ventricular lead positioning and optimized DDD pacing versus intrinsic conduction in sinus node disease: an echocardiographic study. The optimist trial

Philippe Mabo (1), Daniel Gras (2), B.Degand (3), J.Dupuis (4), A.Pellisier (5), Aude Solnon (6), Erwan Donal (1)

(1) CHU Rennes, Cardiologie, Rennes, France – (2) Nouvelles Cliniques Nantaises, Cardiologie, Nantes, France – (3) CHU Poitiers, Cardiologie, Poitiers, France – (4) CHU Angers, Angers, France – (5) CHU Caen, Cardiologie, Caen, France – (6) CHU Nantes, Cardiologie, Nantes, France

Introduction: Preserved intrinsic conduction in paced sinus node disease (SND) patients seems to be associated with a better outcome when compared with apical right ventricular (RV) DDD pacing. The prospective, multicenter, randomized OPTIMIST study was designed to compare RV lead positioning in the septum to preserved intrinsic conduction in chronically paced SND patients.

Methods: SND patients with a class I indication were implanted with a DDD pacemaker (St. Jude medical), the RV lead being located in the mid-septum. The algorithm VIP™ (Ventricular Intrinsic Preference) was programmed « on » in all patients at hospital discharge. After a 6 weeks observational period, patients with a ventricular pacing percentage inferior to 10% were randomized in 2 parallel groups: VIP « on » (preserved natural conduction – group 1) or « off » with AV delay optimization (RV pacing – group 2).

Patients were followed every 6 months with echocardiography through 18 months. The primary endpoint was the left ventricular end-systolic diameter (LVESD) (Corelab analysis), with a non inferiority hypothesis.

Results: 216 patients mean age 76.07±9.45 were included and 167 randomized. The baseline characteristics were comparable in group 1 and 2 including left ventricular ejection fraction, LVEF (62.4±12.6 vs 64.4±8.7%), LVESD (32.7±8.5 vs 32.5±9.3mm) and 6 weeks RV pacing percentage (1.8±1±1.92 vs 2.1±2±0.07%). At the end of FU, as expected the percentage of RV pacing was significantly higher in group 2 (78.9±31.6 vs 7.9±17.4%). The LVEF was 62.3±10.1% in group 1 and 60.9±10.9% in group 2 (NS) and the LVESD was 31.9±7.23mm in group 1 and 31.2±7.21mm in group 2 (NS). The non-inferiority hypothesis was validated (p=2.572e-06 for a delta = 4.785). AF burden was not different between the 2 groups.

Conclusion: When implanting the RV lead in the midseptum, DDD pacing with high percentage of RV capture was not associated with LV echocardiographic deterioration as compared to preserved intrinsic conduction pacing mode.

0017

Heart rate predicts long-term mortality as well as classical risk factors

Florent Séguro (1), Emilie Bérard (2), Vanina Bongard (2), Jean-Bernard Ruidavets (2), Dorota Taraszkiewicz (1), Michel Galimier (3), Didier Carrié (1), Jean Ferrières (1)

(1) CHU Toulouse, Cardiologie B, Toulouse, France – (2) CHU Toulouse, UMR1027 INSERM-University of Toulouse III, Epidemiology, Health Economics and Public Health, Toulouse, France – (3) CHU Toulouse, Cardiologie A, Toulouse, France

Background: Resting heart rate (RHR) is known as a cardiovascular risk factor (RF), correlated with hypertension, cardiac failure and coronary artery disease. The aim of this study was to assess the risk of all-cause mortality in a general population in a prediction algorithm including RHR as an independent parameter.

Methods: Our study population consisted in patients, both women and men, who had consulted from 1995 to 2011 to the Department of Preventive Cardiology (DPC) in a Southwestern French University Hospital. We excluded patients whose age was less than 30 years old and all patients with established history of ischemic heart disease. An algorithm for prediction of risk of mortality in primary prevention was built using Kaplan-Meier statistic and a Cox proportional hazards model.

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