tients with structurally normal hearts following noncontact mapping guided ablation of idiopathic left or right ventricular tachycardia. A significant inverse correlation was found between activation times and ARIs during sinus (r = -0.68±0.23), paced (r = -0.82±0.12), and ventricular ectopic (r = -0.66±0.43) rhythms using the alternative NCM method. However, no significant relationship between activation times and ARIs was found for sinus (r = 0.04±0.25), paced (r = 0.51±0.03), and ventricular ectopic (r = 0.22±0.17) rhythms using the Wyatt method at the same sites. In addition, the Wyatt method appeared to underestimate ARIs at endocardial sites with positive T waves resulting in significantly larger global dispersion of repolarization than the alternative method in these normal hearts (98±28 ms vs. 42±13 ms, P <0.001).

Conclusions: The Wyatt method underestimates endocardial ARIs in areas with positive T waves and may be inaccurate in demonstrating global ARIs dispersion of repolarization or activation-repolarization relationship in the normal endocardium. The alternative NCM method may be a better determinant of endocardial repolarization patterns.

P-187 CAVITRUCUSPID ISTHMUS ANATOMY IN FLUTTER ABLATION OF RIGHT ANEVISMAL ATRIUM USING NON CONTACT MAPPING

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Introduction: Non contact mapping with the EnSite 3000 System of right aneurismal dilated atrium, was used to guide ablation of Typical Atrial Flutter (TAF). The study was designed to report anatomy particularities and correlation with ablation line in dilated cavitricuspid isthmus.

Methods and Results: In 10 consecutive patients (age 62±13 years; 1 woman), with aneurismal atrium, typical atrial flutter was performed using noncontact mapping. A three-dimensional map of right atrium was created. Several variables including anatomical right atrial data were tested: cava-tricuspid isthmus dimension (mm), sepal isthmus dimension (mm), right atrial area (cm²), anatomy of ablation lines, flutter cycle length (ms), mitral valve orifice (II, III or IV grade), number of radiofrequency applications (±SD).

All patients remained free of atrial flutter with an average follow-up for 6,4 months. Inferior isthmus ablation (between tricuspid annulus and inferior vena cava) was performed in 11 patients and both inferior and septal isthmus ablation in 2 patients. Noncontact mapping, assessed complete bi-directional isthmus conduction block.

Conclusions: Non contact mapping has been shown to be an effective and safe method for demonstrating the complete circuit of TAF, in dilated cavitricuspid isthmus, as well as in postablation recordings that visually confirmed success and indicated bi-directional block.

P-189 CLINICAL EVIDENCE OF NEW PHYSIOLOGICAL MODE SWITCHING ALGORITHM BASED ON HRV

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Background: The Heart Rate Variability (HRV) represents the net effect of the parasympathetic-sympathetic system. The HRV Mode Switching algorithm, determines the patient HRV by PNN50 evaluation and classifying each event, with respect to the rhythm, as normal or abnormal distinguishing between pathologic oscillation increase of the atrial rate and atrial tachycardias.

Aim: to verify the effectiveness of the HRV Mode Switching algorithm in term of recognising and managing episodes of tachyarrhythmias (AT, AF, flutter and PACs).

Method: From Feb. 2001 to April 2004, 240 patients (age 71±7.5 years, 24M) were implanted with an ELECTRA Sorin pacemaker in 7 Italian centres, evaluating 1 day, 1 week, 1 month after implantation with 24 h Holter and a stress test.

Results: The average sensitivity of the algorithm using 24 h Holter, is 95.8±5.9%. In all the cases the sinus tachycardia induced by the effort was correctly recognised and the Mode Switching allowed the proper tracking of the atrial rate. The average maximal rate was 127.9 min⁻¹±30.3 and the Specificity is 100%. No problems of pacing or sensing were reported.

Conclusion: The new algorithm show a good Sensitivity in recognising and managing episodes of tachyarrhythmias. The absence of false responses during stress test confirms the effectiveness of the HRV as an indicator of the sympathetic-vagal balance, and therefore, as a parameter for the determination of the maximum allowable atrial rate variation.