(AVT) are reported at enrolment (Enrol), 3-6 months (FU1) and 9-12 months (FU2) in patients with dual chamber PM (pts).

**Results:** Up to now 804 pts were enrolled and followed during 9.5±3.9 months (age 76±9 years, 57% male, PR interval 196±34 ns, 40% sinus node dysfunction, 27% bradyarrhythmia/tachycardia syndrome, 10% 1° AV block, 33% paroxysmal 2° or 3° AV block). PM programming was left to the discretion of the investigator. Atrial and ventricular automatic sensing algorithms were used in less than half of the pts without any increase over the time. During follow-up, ventricular automatic capture algorithm and ventricular automatic threshold test were increasingly used (p<0.01). DynAVD and AVSH were continuously activated in most of the pts (see table).

**Parameter** | AAS on (%) | AVS on (%) | VAC on (%) | AVT on (%) | AVSH on (%) | DynAVD on (%)
--- | --- | --- | --- | --- | --- | ---
Enrol | 46 | 40 | 69 | 64 | 85 | 97
FU1 | 45 | 39 | 74 | 68 | 87 | 97
FU2 | 46 | 40 | 76 | 71 | 87 | 97
p (Enrol vs FU2) | ns | ns | <0.01 | <0.01 | ns | ns

**Conclusion:** Intermediate results of this study show that automatic algorithms were currently used by the investigators when directly dedicated to right ventricular pacing. However, automatic algorithms dedicated to sensing appeared to be less used in daily medical practice.

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**Incidence and significance of antidromic tachycardia induction in the Wolff-Parkinson-White syndrome**


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Electrophysiological study (EPS) is recommended in Wolff-Parkinson-White syndrome (WPW). Induction of orthodromic AV reentrant tachycardia (AVRT) is the most frequent. Atrial fibrillation (AF) induction is associated with the prognosis of WPW. Less is known on the induction of antidromic tachycardia (ATD). The purpose of the study was to determine the clinical and electrophysiological data of patients (pts) with a WPW and inducible ATD.

**Methods:** EPS was performed in 637 pts with a WPW either for tachyarrhythmia (n=335) or syncpe (n=88); other pts were asymptomatic (n=213). In control state (CS), the higher rate conducted through accessory pathway (AP) was measured; programmed atrial stimulation with 1 and 2 extrasystoles was performed. The protocol was repeated after isoproterenol infusion.

**Results:** ATD was induced in 45 pts (7%) (group I). The group was compared to remaining pts without inducible ATD (group II). Group I differed from group II by the following data: female sex was less frequent in group I (29.5 %) than in group II (47 %)(p<0.01); AP was more frequently left lateral sided in group I (54 %) than in group II (38 %)(p<0.05). AVRT was induced less frequently in group I (34 %) than in group II (57 %) (p<0.01); maximal rate conducted through AP was higher in group I (214±51 b/min) than in group II (189±61.5) in CS and after isoproterenol (280±56.5 in group I vs 237±61 in group II) (p<0.001). Some data were similar: age was similar in group I (34±20 years) and II (34.5±17); EPS indications were similar: age was similar than in group II (189±61.5) in CS and after isoproterenol (280±56.5 in group

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**CRT responders. Nyctahm dynamicty of Ventricular Repolarization during Biventricular Pacing, vs, Unichamber Pacing**

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**Background:** The dynamic analysis of cardiac signals may reveal cardiovascular system abnormalities. In pts with fixed heart rate, the dynamic behavior of the repolarization phase (QT interval) is mainly related to the sympatheticpathovagal balance.

**Aim of the study:** was to evaluate the QT changes in two dimensions (space and time), in continuously paced pts with heart failure (HF), under biventricular pacing (BiV, LV pacing first), RV apex pacing and epicardial LV pacing.

**Methods:** 22 pts with drug refractory HF, chronic AF, iatrogenic C.AV. block (due to RFAVJ ablation) and responders to CRT were evaluated at 6 mos post-implant, with a 24 H Holter monitoring under BiV pacing, RV apex and LV pacing, at a fixed rate of 70 bpm. A chrono-spatial analysis (Frank leads, XYZ) of the repolarization interval was performed, during day (7h-22h) and night (23h-6h) time.

**Results:** Under BiV pacing, the spike-T(end) interval is characterized by a dynamic circadian behavior, with higher values during the night (440±35ms) compared to the day time period (395±40ms, P<0.05). On the contrary, RV apex (425±50ms, vs 395±60ms, P=NS), and LV pacing (415±82ms, vs 390±55ms, P=NS) abolishes the circadian behavior of the repolarization.

**Conclusion:** In CRT responders, the repolarization phase maintains the nyctahm dynamicy behavior. On the contrary, it is disappeared under RV apex or LV free wall pacing. The amelioration of the sympathovagal balance in CRT responders is a possible explanation.

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**Study of the effect of mode of pacing on ventricular repolarization in heart failure patients**

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**Background:** Cardiac resynchronization therapy (CRT) is a well established treatment in selected patients with heart failure. The non physiological ventricular activation sequence has been implicated in the occurrence of sudden death after CRT. There is conflicting data concerning the effect of different pacing modes on ventricular repolarization in heart failure patients.

**Purpose:** Assessing the effects of biventricular (Bi V), left ventricular (LV) epicardial pacing and right ventricular endocardial pacing (RV) on QT intervals (QT end, QT apex, JT) and transmural dispersion of repolarization (TDR) in patients with heart failure having CRT.

**Methods:** 20 patients (15 men and 5 women, age = 63.4 ± 11 years) with NYHA III-IV heart failure due to left ventricular systolic dysfunction and cardiac dysynchrony received CRT. We measured QT end intervals, JT intervals and TDR according to recommended methods on a 12 lead ECG recorded at baseline and after implant. After implant, ECG was recorded with temporary right ventricular pacing, temporary left ventricular pacing and then the final pacing mode : simultaneous biventricular pacing.