

Material and methods: We carried out a multicenter survey in 8 French centers. Each patient received a questionnaire to evaluate his perceptions on information and consent, risks associated with pacemaker implantation and ability to perform various routine activities.

Results: We included 185 patients. The mean age was 75.4 + 10.5 years.

A large number of patients considered many routine activities as unsafe, such as sleeping on the side of the pacemaker (12%), swimming (15%), driving automobiles (17%) and passing through metal detectors (47%). Patients had also misconceptions about using induction hobs (38%) and arc welding equipment (32%).

As regards medical imaging, 38% did not know if they could undergo MRI exams. As regards medical follow up, 11% of patients thought they did not need heart medications and 17% that they were exempt from monitoring by a cardiologist. In univariate analysis, the factors associated to misconceptions about pacemakers were an age above 75 years and a primary implantation.

Conclusion: The results of our study highlight patients' misperceptions on life with a pacemaker. This should lead cardiologists to better inform patients at the time of pacemaker implantation.

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Long-term follow-up after implantable loop recorder in patients with syncope: results of a french Survey

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Background and objective: Despite recent advances in diagnostic procedures, syncope remains unexplained in 15 to 35% of patients. If implantable loop recorder is a validated diagnostic tool for unexplained syncope, results of this strategy are largely issued from randomized studies. We lack the results of surveys. The aim of this study was to report a single center experience with implantable loop recorder, in patients with unexplained syncope.

Methods and results: A device (Medtronic Reveal) was implanted in 30 patients between January 2009 and January 2012. 80% of patients experienced recurrent syncope and 20% were implanted after a first syncope with a suspicion of an arrhythmic cause. During a mean follow-up of 10.5±8.5 months after device implantation, loop recording definitively determined that an arrhythmia was the cause of symptoms in 9 patients (30%).

Thirteen patients (41%) experienced syncope or pre-syncope. In 6 of the 13 patients with syncope during follow-up no diagnosis could be made (non arrhythmic causes- one patient has been diagnosed as presenting epilepsy and 5 as having hypotensive vasovagal syncope). In 7 patients, the ILR lead to the diagnosis showing an arrhythmic etiology. Two other patients presented an abnormal ILR results without symptoms.

Diagnosis included sinus arrest in 3 patients, bradycardia in 1 patient, advanced atrio-ventricular block in 3 patients and ventricular arrhythmia in 2 patients. Therapy was instituted in all patients, in whom an arrhythmic cause was found except one who refused the therapy (6 pacemaker and 2 implantable cardioverter defibrillator implantation).

Conclusion: In this registry, implantable loop recorder implantation led to the diagnosis of an arrhythmic cause in 30% of patients. This percentage seems to be lower than those reported in randomized studies. These results should be confirmed in a larger multicentric survey.

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Interest of a simple method for coronary sinus lead tunneling from contralateral to homolateral subclavian vein in upgrading indications

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Introduction: We developed the usage of a simple tunnelling method from contralateral access to the device in case of homolateral subclavian access failure when an additional lead is needed.

Goal of the study: long term evaluation of feasibility and safety of this tunneling strategy.

Method: From September 1998 to September 2011, a coronary sinus (CS) lead was implanted through contralateral access after failure of homolateral to the device implantation in 31 consecutive patients (19 males 72±8 yo). Indications were thrombosis 14 and failure to catheterize CS 17. All these patients were already implanted with a single or double chamber pacemaker or internal cardiac defibrillator and were referred for upgrading to biventricular pacing. The packaging sheath of a simple conventional catheter (plastimed) was introduced from one side to the other under local anesthesia after scissors dissection under local anesthesia. Tunneling of coronary sinus lead was performed through the sheath which was then withdrawn.

Results: Success tunneling procedure rate was 100%. Tunneling time was 3±2 mn. Complications related to the procedure: 2 cases of xylocaïne overdose needed temporary ventilation assistance at beginning of experience. 1 early dislodgment needed replacement, 2 cases of early battery wear because of low impedance of the CS lead. No hematoma, no acute or late pain complaint, no lead infection were reported.

Conclusion: Contralateral implantation through a simple packaging sheath is a simple and safe option in case of homolateral access failure in upgrading indications.

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Prevalence of early repolarization in congenital long QT syndrome A combination of early and delayed repolarization

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Introduction: early repolarization (ER) in Brugada or short QT syndrome is common and has been associated to a less favourable outcome. Even if apparently paradoxical, ER can also be seen in long QT (LQT) but prevalence and correlations to other variables are unknown.

Methods: 12 lead ECG of 37 LQT pts (19 men, 39±21 yo) and 80 matched controls were reviewed. LQT pts were selected by a positive genetic testing (n=27) or by showing abnormal T wave and long QT interval (n=10) either spontaneously or during epinephrin infusion. ER was defined by >1 mm J point elevation in the inferior or lateral leads with notch or slurring pattern. Presence of ER was correlated to the clinical and ECG characteristics and results genetic analysis.

Results: QT was 409±53 msec in pts and 372±24 in controls (p<0.0001) (QTc 476±52 vs 392±26 msec, p<0.0001). Two LQT pts presented with resuscitated sudden death and 4 with syncope at the time of diagnosis.

14/37 LQT pts (38%) had ER compared to 17/80 (21%) controls (p=0.05).

ER was more frequent in men (12/19, 63%) compared to women (2/18, 11%) (p=0.001) but was not correlated to age. Pts with ER had slower heart rate (63±10 vs 75±18 bpm, p=0.02).

ER was not correlated to symptoms or cardiac events (no ER in the 2 pts with SD and in 2/4 pts with syncope).

QT were longer in pts with ER (450±68 vs 397±54 msec in V2, p=0.01) but there was no correlations between ER and corrected QT intervals.

ER was more often seen in pts with or without mutations although non significantly (8/27 vs 6/10, p=0.09), but there was a trend toward more frequent ER in case of HeRG mutations (6/12) than KCNQ1 or KCNJ2 mutations (2/11 and 0/4) (p=0.09).

Conclusion: ER is very common in LQT pts and is related to the gender and to the heart rate but not to the corrected QT duration. ER does not seem to be correlated to cardiac events in this series but may be linked to some gene mutations. Further studies are needed for demonstrating additional mutations/variants or the existence of an early transient voltage gradient due to altered kinetics in muted potassium channels with loss of function.