



Figures 1 and 2

Method and result: A 64-year-old male with standard indication for CRT was referred to our institution for a CRT-D implantation. Unfortunately, intubation of the CS was not possible. TEE showed a congenital CS anomaly with complete drainage of the CS into the left atrium.

Because of contra-indication for general anaesthesia and thus for surgical epicardial implantation, we proposed to implant the LV lead by a transseptal approach.

After the patient had given his consent, a transseptal puncture was performed via the right femoral vein. A conventional screw-in lead was implanted at the laterobasal segment of the LV using a deflectable catheter guide introduced via the left subclavian vein through the transseptal puncture. Post-implantation parameters of the LV lead were acceptable: pacing threshold 0.7 V-0.4 ms, impedance 435 ohms, R wave amplitude 5 mvolts. Right ventricular and right atrium leads were then implanted (fig1)

A post-implant CT scan confirmed the ectopic location of the CS ostium without persistent superior vena cava (fig 2).

The patient was discharged on anticoagulation with a targeted international normalized ratio between 3 and 4. At the one- and three-month follow-up, no complication had occurred. He was in class 2 of the NYHA and had not been hospitalised. Electrical parameters remained steady.

Conclusion: Complete drainage of the CS in the left atrium without persistent vena cava is a rare congenital abnormality. When cardiac resynchronization therapy is needed, transseptal implantation could be a feasible alternative.

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Gene-specific effect of beta-adrenergic blockade on QT duration in the Long QT syndrome

Pierre Maison-Blanche, Isabelle Denjoy, Patrick De Jode, Anne Messali, Ghassan Moubarak, Antoine Leenhardt
CHU Lariboisière, Département de Cardiologie, Paris, France

Background: In the long QT syndrome (LQTS) the clinical efficacy of beta-blocker treatment differs according to the genotype. We aimed to assess the effect of beta-blocker treatment in LQT1 and LQT2 patients.

Patients and methods: 24-hour Holter ECG were recorded before and after beta-blocking therapy initiation in genotyped LQT1 (n=30, 8 males, mean age 21±17) and LQT2 patients (n=16, 8 males, mean age 19±15). QT duration was measured on consecutive 1-minute averaged QRS-T complexes leading to up to 1440 QT-RR pairs for each recording. Then, we computed subject- and condition-specific log/log QT/RR relationships which were used to calculate QT interval duration at RR=1000 ms (QT1000=1000*).

Results: Before treatment, coefficients were higher in LQT2 than in LQT1 patients (0.53±0.10 vs. 0.40±0.11, p<0.001) and QT1000 was longer in LQT2 than in LQT1 patients (521±38 vs. 481±39 ms, p<0.01).

Beta-blockers significantly prolonged the mean RR interval (RR=827±161 ms before treatment and 939±197 ms on beta-blocker, p<0.0001). The coefficients were not significantly modified by beta-blockers (0.41±0.9 in LQT1 patients and 0.52±0.12 LQT2 patients). Beta-blocker treatment was associated with a prolongation of the QT1000 interval (from 481±39 to 498±43 ms, p<0.01) in LQT1 patients but with a shortening in LQT2 patients (from 521±38 to 503±32 ms, p<0.01).

Conclusions: Our results confirm the elevated coefficient of the QT/RR relationship in LQTS patients. LQT2 patients showed higher coefficient and longer QT1000 when compared to LQT1 patients. The effect of beta-adrenergic blockade on QT1000 duration was gene-specific. Given the demonstrated efficacy of beta-blockers in LQT1 and 2 patients, our data suggest that QT1000 might be a poor predictor of outcome under anti-adrenergic therapy.

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Is it necessary to indicate another electrophysiological study in patients previously studied for a preexcitation syndrome?

Béatrice Brembilla-Perrot (1), H Khachab (1), Franck Laporte (1), Soumaya Jarmouni (1), Pierre Yves Zinzus (1), Lucian Muresan (1), Raphaël Pedro Martins (1), Jérôme Schwartz (1), Laurent Groben (1), Christian De Chillou (1), Mariud Andronache (1), Daniel Beurrier (1), Céline Olivier Kazmierczak (1), Jean Marc Sellal (1), Anne Moulin-Zinsch (2), François Marçon (2)
(1) CHU de Brabois, Cardiologie, Vandoeuvre Les Nancy, France - (2) CHU de Brabois, Cardiologie Pédiatrique, Vandoeuvre Les Nancy, France

Accessory pathway (AP) refractory period (RP) increases from the youth to the elderly. The large indications of AP ablation have changed the natural follow-up. The purpose of the study was to report the clinical and electrophysiological data of pts with a Wolff-Parkinson White syndrome (WPW), studied within 1 to 20 years of one another to evaluate the changes of these data.

Methods: 2 baseline EPS were performed within 1 to 20 years (y) of one another (mean 9 y ± 4) in 61 pts, 37 males and 24 females, aged initially from 10 to 67 y (30±14), with a patent WPW. First electrophysiological study (EPS) was indicated for syncope (n=6), atrioventricular reentrant tachycardias (AVRT) (n=34), atrial fibrillation (AF) (n=5) or for asymptomatic preexcitation (n= 16). The protocol was similar: the higher rate conducted through AP