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**Long-term follow-up after alcohol septal ablation for hypertrophic obstructive cardiomyopathy in young adults**

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**Aim:** To assess the long-term safety and efficacy of alcohol septal ablation (ASA) in young adults.

**Methods:** Data of 163 consecutive patients who underwent ASA at our institution from 2000 to 2010 were reviewed. Clinical follow-up was obtained at a mean of 3 years after ASA in patients aged between 18 and 40 years at the time of the procedure.

**Results:** During the study period, 21 patients (15 males) aged between 18 and 40 years old (mean age 33.1±5.6, range 18-39 years) underwent ASA. Among them, 76% were treated with beta-blockers, 33% calcium-channel antagonists and 5% disopyramide. There were 6 patients (29%) with prior pacemaker, 1 patient (5%) with history of sudden death and prior implantable cardioverter-defibrillator (ICD) and 1 patient (5%) with prior myectomy. At baseline, mean New York Heart Association (NYHA) functional class was 2.4±0.5. Mean left ventricular outflow tract (LVOT) peak gradient and septal thickness were 89±37 mmHg and 24.9±5.1 mm, respectively. All procedures were performed with myocardial contrast echocardiography guidance. During ASA, 2.2±0.7 ml of absolute alcohol was injected in 1.4±0.5 septal perforators. Final procedural LVOT peak gradient was 20±16 mmHg. Procedural success (defined as immediate LVOT peak gradient reduction >50%) was achieved in 20 patients (95%). There were no major complications. One patient (5%) required a temporary pacemaker for second-degree atrioventricular block. Mean peak CK was 934±486 IU/L. At a mean follow-up of 3.0±2.0 years after the procedure (range 0.3-8.4), repeat ASA was performed in 2 patients (10%) and a new ICD was needed in 1 patient (5%) while 3.0±2.0 years after the procedure (range 0.3-8.4), repeat ASA was performed in 2 patients (10%) and a new ICD was needed in 1 patient (5%). There were no fatalities reported. Mean NYHA class was improved to 1.6±0.7.

**Conclusion:** ASA in young patients appears to be safe and effective. Immediate success is achieved in a large majority of patients and procedural complication rates are low. In addition, 3-year follow-up shows sustained clinical benefit with a low rate of adverse events.

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**Link between tako tsubo cardiomyopathy and major anxiodepressive disorders: a prospective study**

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**Background:** Takotsubo cardiomyopathies (TTC) are usually associated with emotional or physical stress as aetiological factors. Nonetheless, exposure to stress does not unconditionally lead to TTC development. We hypothesize that TTC may occur in a predisposed population.

**Purpose:** The aim of our prospective study was to define the prevalence of major anxiety troubles in a population of patients with TTC compared with a population of sex and age matched patients with acute coronary syndrome with troponin elevation (ACS).

**Method:** Between January 2010 and March 2011, 35 patients with TTC confirmed by coronary angiography, cardiac MRI and clinical evolution were prospectively underwent to the psychiatric MINI test to research new or past major depressive episode (MDE), generalized anxiety trouble (GAT), post-traumatic stress disorder (PTSS) or dysthymia (DT). The same test was realized in a population of 30 matched patients with ACS.

**Results:** Mean age was 74 (65.8-82.5) years in the TTC group and 73 (70.2-80.2) in the ACS group (p = 0.484) with 11 % men in each group. There was no difference between TTC group and ACS group regarding cardiovascular risk factors. Among TTC 29 underwent finally the test (6 exclusion because of incapacity to understand the test), 16 (55.2%),11 (37.9%), 7 (24.2%), 3 (10.4%) and 1 (3.5%) patients had new MDE, past MDE, GAT, PTSS and DT respectively. Among the 30 patients with ACS 5 (16.6 %; p <0.005), 3 (13.3%; p<0.05), 2 (6.6%; p=0.074), 1 (3.3%; p=0.3) and 1 (3.3%; p=0.9) patient had new MDE, past MDE, TAG, PTSS and DT respectively. Major anxiety troubles were found in 19 (65.5%) patients in the TTC group versus 7 (23.3%) patients in the ACS group (p<0.005).

**Conclusion:** TTC are more frequently associated with major anxiety troubles and particularly new or past MDE. This association is not present for PTSS, GAT or DT. These findings suggest that TTC and depression may share common pathophysiological pathway.

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**Peripartum cardiomyopathy (a series of 12 cases)**

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Peripartum cardiomyopathy (PPCM) is frequent in Africa. It is characterized by heart failure in the last month of pregnancy or in the 5 months followings delivery. If the pathogenesis of the disease is still obscure the diagnostic has been greatly simplified by echocardiography showing typical appearance of hypokinetic cardiomyopathy, often diluted in a context of early heart failure occurred in the peripartum. However, manifestations of the disease are not unambiguous and changing parameters echocardiography has been little studied.

The aim of this work was to assess the echocardiographic abnormalities of the PPCM and to determine on 12 patients the evolution and the prognostic factors of this disease. The cases of peripartum cardiomyopathy treated from January 2008, to January 2011 in our service were reviewed. The abnormalities of the wall motion, constantly found, were diffuse in all patients and localized or prevalent on the interventricular septum or the left ventricular posterior wall in the other cases. The cardiac chambers were dilated in all patients. The left ventricular systolic dysfunction was constant. The other abnormalities were: restrictive mitral profil (6 patients) low mitral and aortic flow (3 cases), the mitral (10 cases) and tricuspid regurgitation (8). During follow up, all patients improved to Class I of NYHA, 2 patients improved their echocardiographic parameters and one patient died after a subsequent pregnancy.

The factors associated with the absence of normalization of the echocardiographic parameters were: the gestity, the parity, the cardiothoracic ratio, the left ventricular volumes, and the parameters of left ventricular function.

In conclusion, symptoms improve over time in a significant numbers of patients, which is corroborated by improvement of the LV function as assessed by echocardiography. Certain variables at initial evaluation can help in identifying high risk subnets with peripartum cardiomyopathy.

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**Effects of permanent left atrial pacing in patients with heart failure and preserved ejection fraction**

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**Background:** Although numerous patients are suffering from heart failure with preserved ejection fraction (HFPEF), no specific treatments have been shown to be efficient so far. We hypothesized that inter-atrial conduction delay (IACD) associated with a short left atrio-ventricular interval (LAVI) may impair left ventricular active filling as it reduces the left atrium “kick” which occurs against the closing mitral valve.

We assessed the clinical efficacy and safety of left atrial pacing therapy as a new treatment to restore the left ventricular active filling in these patients.

**Methods:** Six NYHA class III patients with severe HFPEF and no other cause for heart failure symptoms than a short LAVI with IACD were implanted with pacemakers for left atrial permanent stimulation via the coro-