Isolated anomalous connections of the coronary arteries: an observational cohort of more than 450 young people or adults (ANOCOR study)

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Isolated proximal anomalous connections of the coronary arteries (ANOCOR) are rare and sometimes raise diagnostic and therapeutic problems. The prognosis depends mainly on the initial course of the ectopic vessel. In the current guidelines, surgical repair is recommended for high risk ANOCOR. The lack of controlled studies and scarcity of data concerning the long-term evaluation of ANOCOR corrected or not may explain the discordance noticed between recommendations and practices. Large-scale prospective multicenter registries dedicated to ANOCOR are needed to achieve a better understanding of the clinical profile and the impact of correction on the natural history of these congenital coronary abnormalities.

The ANOCOR study began 31st January, 2010 with an inclusion period of 3 years. More than 450 young people (≥15-year-old) and adults have been included by 71 interventional cardiologists from the Interventional Working Group (GACI) of the French Society of Cardiology. A 5-years follow-up was scheduled.

Clinical characteristics, angiographic patterns and computed tomography images, as well as the initial management of the ANOCOR cohort patients will be presented.
The possible role of the bovine jugular vein in the development of endocarditis is concerning. However, despite a higher incidence of Melody valve endocarditis, probabilities of survival and event free survival were similar to the surgical group.

0181
Long term effects of cardiac resynchronization therapy in congenital tetralogy of Fallot
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Background: Patients with corrected tetralogy of Fallot (TF) often suffer from symptomatic right ventricular failure always associated with right bundle branch block (RBBB) on resting ECG.

Aims: Our objective was to evaluate the mid-term safety and efficacy of cardiac resynchronization (CRT) in this population.

Methods: We collected retrospectively every adverse events due to biventricular pacing of patients with corrected tetralogy of Fallot implanted with CRT system in our department. We also compared clinical datas (NYHA score, stress tests, ECG, echocardiographic results before implantation, at 6 months of follow-up and at the last evaluation.

Results: From August 2005 to September 2009, 9 patients were implanted with CRT system, 6 (66.7%) with transvenous leads and 3 (33.3%) with epicardic leads, mostly composed of men (6, 66.7%) with a mean age of 34.2±14.5 years, 4 (44.4%) had an Implantable Cardioverter Defibrillator (ICD) function. During a median follow-up of 65 months [50-80], no main adverse event was reported, we had 1 atrial lead dislocation, 3 (33%) lead disfunctions causing only 1 (11%) resynchronisation failure and 1 (11%) intermittent phrenic nerve stimulation. CRT were associated with lower NYHA score (1.4±0.52 then 1.3±0.8 vs 2.0±4.0, p<0.05) and an improved exercise tolerance (100±21,6W then 112,9±12,9W vs. 71,3±26,2W, p<0.05) at 6 months and at the end of follow-up. Mean RVEF was increased (54,3±8,2 vs. 38,5±7,5; p=0,035 and so was LVEF (53,8±8,3% vs. 48,8±8,8%, p=0,04).

Conclusion: CRT in corrected tetralogy of Fallot and right ventricular failure is safe and seems to be associated with an improvement of patient's functional status. This first study on CRT in this population should be confirmed by a large prospective randomised multicentric clinical trial.

0095
Fate and evolution of patients with congenital heart disease: Moroccan experience
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Congenital heart disease are frequent and often severe. Their surgical treatment restores the closest possible physiological function. In Under-developing countries, the therapeutic management of these heart disease is limited by the lack of resources and skills. The objective of this work was to study the fate of patients in whom the indication for surgery was made

A retrospective descriptive study conducted at the University Hospital of Casablanca over 5 years (december 2008 to december 2013). We have collected 1908 patients with congenital heart disease, 738 (38.7%) had a surgical indication, 50% of patients were operated, 22.6% non-operated. In patients operated, the median age of surgery: 3 years [6days-51years], the median time between diagnosis and surgery: 4months [9days-5yrs]. It was a IVC (30%) and a IAC (20%). Favorable evolution m82.9%. Death occurred in15, 2% which 62.5% immediately in postoperative period. Mortality varied with the centre (18% for patients operated in UHC and 24% privately center and 3.4% in abroad). In non-operated patients, 50%were due to lack of funds, 34.3% awaiting a surgical date and 15.7% refused surgery. 34.5% of non-operated patients died. The quality of life of survival patients is affected in 68% in terms of physical health, and 76%of patients had mental health degradation.

Although the indication for surgery of congenital heart disease is a medical necessity, the outcome of these patients in Moroccan context depends on several technical and affordability considerations. This results in a high mortality rate and also adult carriers of congenital heart disease with impaired quality of life.

0047
Follow-up of children or teenagers with paroxysmal supraventricular tachycardia but without preexcitation syndrome
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Paroxysmal supraventricular tachycardia’s (SVT) are considered of benign if ECG in sinus rhythm (SR) is normal, but their occurrence in children/teenagers is always associated with an anxiousness of parents, child and doctors. The purpose of study was to report the clinical and electrophysiological data of children with SVT, their follow-up and management.

Methods: 147 children and teenagers aged from 5 to 19 years (mean 15±3) with a normal ECG in SR were studied for spontaneous SVT, Transesophageal electrophysiological study was systematic. Children were followed from 1 month to 13 years (mean 2±2 years).

Results: SVT was poorly-tolerated in 26 patients (18%). SVT was related to atrio-ventricular (AV nodal re-entrant tachycardia (AVNRT) in 14 children, mostly either in 95 children or atypical AVNRT in 12 children, to an AVRT related to a concealed accessory pathway (AP) in 40 patients (27%). Radiofrequency (RF) of the slow pathway (n=50) or AP (n=32) was performed in absence of general anaesthesia in 82 patients (56%) from 1 month up to 13 years after initial evaluation (mean ±2±2 years). Failure of ablation (frequently for refuse to continue) was frequent and occurred in 15 children (26%), 7 with AVNRT (14%), 9 with AP (28%) (0.08). Recurrence of SVT occurred in 4 patients (5%) and 14 (17.5%) have still sinus tachycardia-related symptoms. In 13 children treated by antiarrhythmic drug (AAD) or betablockers, SVT recurred in 4 children; 2 children presented AAD-related syncope. In 52 untreated patients one death was noted after AAD infusion used to stop SVT, but other patients remained asymptomatic or had short and well-tolerated SVT’s.

Conclusions: The management of SVT in children remains difficult despite the development of RF ablation of SVT. Failure of ablation remains higher than in adults for several reasons. Child remains symptomatic in 17.5% of cases after ablation. One third of them had a spontaneous favourable evolution. However in symptomatic children with frequent SVT’s despite antiarrhythmic drugs or betablockers, ablation should be indicated to avoid drugs-related adverse effects.

0410
Right ventricular systolic strain evolution during peri-operative management of congenital heart diseases
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Background: RV systolic strain evolution during peri-operative management of congenital heart diseases (CHD) is unknown.

Methods: In this prospective study, RV peak systolic strain (PSS) was measured using 2D speckle tracking echocardiography (Qlab10.0 software, Philips) in 39 children undergoing surgery of a CHD (median age: 17 months, min 6 day-old, max 14.3 year-old) three measures were performed the day before surgery, few hours after the surgery and before discharge and compared