underwent a clinical examination, an echocardiogram, an oesophagial echocardiogram or other radiologic (CT or MRI), to specify the congenital heart disease. All patients had an adequate interventional cardiology, surgical care or medical intervention.

Results: We included 44 patients, 23 cases of atial septal defects (ASD) with mean age 38 years (16 women and 07 men), 8 ASD closed surgically and 15 by percutaneous routes.

4 patent ductus arteriosus: mean age 32 years (04 women), closed by percutaneous.

4 cases coarctation of the aorta, mean age 32 years (4 women), dilated with percutaneous procedure. 9 pulmonary stenosis, mean age: 30 years, all patients underwent balloon dilation. We investigate also one bicuspid aortic with aortic stenosis and 2 Epstein anomaly.

The outcome was favorable for all patients diagnosed during this period.

Conclusion: Congenital heart defects discovered in adulthood are not uncommon and should be supported either by medical, surgical, or interventional.

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Pulmonary arterial hypertension complicating arterial switch surgery for simple transposition of the great arteries-prevalence and outcomes

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Pulmonary arterial hypertension after successful arterial switch operation (ASO) for simple transposition of the great arteries is a rare but important cause of late morbidity and mortality. However this complication is poorly characterised in the literature. In Here, we report the prevalence of this condition and its outcomes from the largest series of ASO procedures yet reported.

Methods: Between January 1985 and June 2011, 1137 arterial switch procedures were performed for simple TGA at the Hôpital Necker Enfants Malades in Paris. All patients underwent ASO within the early neonatal period. In all cases, pulmonary pressure was evaluated at routine echocardiography and pulmonary hypertension was confirmed by right heart catheterisation.

Results: Of 1137 consecutive ASO cases, 8 patients (0.7%, 95% confidence interval 0.29-1.36%) developed severe PAH in the peri-operative period that persisted beyond 1 month post-operatively requiring PAH targeted therapy. Three of those resolved with treatment after 3, 4 and 5 months respectively.

The prevalence of PAH in a general French paediatric population was estimated to be 3.7 per million. These data suggest that long-term survivors of the ASO have a relative risk for the development of PAH around 2000-fold (point estimate 1757-fold, 95% confidence interval 785-3932) compared to children without congenital heart disease.

Conclusion: Pulmonary hypertension is a severe complication of TGA which must be rapidly detected in order to initiate targeted therapy. Reversibility is indeed not excluded since last cases of our series have normalized their pulmonary pressure.

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Transcatheter closure of ASD in infancy with the Amplatzer septal occluder

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Many devices are available for atrial septal defect (ASD) usually in adults and children. We report here one center experience in transcatheter closure of ASD in infancy, using the Amplatzer septal occluder. From January 2003 to March 2010, 10 males and 5 female, mean age 10.9±6.4 months, with weight 6.7±2.5 kg underwent transcatheter closure of atrial septal defect. The patients had significant left-to-right shunting (n=12), right-to-left shunting with hypoxemia (n=3). For the left-to-right shunting, the ASD was closed for pulmonary hypertension (n=10), for recurrent chest infection and bronchiolitis (n=5). The ASD was associated with other congenital heart defect (n=5), prematurity and bronchopulmonary dysplasia (n=6), foetopathy (n=1) and encephalopathy (n=1).

The ASD was evaluated by transthoracic echocardiography (TEE) before the procedure. Percutaneous closure was realized with TEE for all patients. They received intravenous heparin. For 4 patients implantation was performed after a balloon test occlusion (mean 11±3.4 mm diameter). The ASO device size was 10.4±3.9 mm. The fluoroscopy time was 7.9±3.9 minutes and the time of the procedure 55.6±21.8 minutes. No per procedural complications were observed for all but for two (one anomalous device deployment and one insufficient rim). These two patients were subsequently surgically repaired. Patients left the hospital with a low dose of aspirin for 6 months.

During follow-up, four patients had a minimal residual shunt on TEE performed up to one year after the implantation. No later cardiac complication was observed.

To conclude, transcatheter closure of atrial septal defect in infant with the ASO is feasible and a possible alternative to surgical closure. In addition, ASD occlusion improves the respiratory status and reduces the level of pulmonary hypertension. Additional long-term results and a large study are both necessary to establish the future of this population

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Outcome of patients with “infantile partial atrioventricular septal defects” necessitating surgical repair within the first year of life

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Background: Precise features of infants with partial and transitional atrioventricular septal (PAVC) defect requiring surgical repair remain undetermined, as well as their outcome. We retrospectively analyzed this patient population.

Patients and Method: Cases with single ventricle palliation were excluded. Since January 1st, 2000, 11 infants (< 1 year of age) underwent surgical repair of PAVC in our institution, at a median age and weight of 7 (2 to 11) months and 6.2 (3.4 to 7.8) Kg, respectively. All patients had refractory congestive heart failure before surgery. Six patients were prenatally diagnosed and 2 had Down syndrome. Three patients had a small left atrioventricular valve (LAVV) with a Z-score diameter < – 2. One infant had and associated aortic coarctation necessitating concomitant repair. Other associated cardiac anomalies included persistent left superior vena cava and interrupted inferior vena cava.

Results: All the patients survived after surgical repair, with a median stay of 2 (1 to 21) days in the intensive care unit. One patient with a parachute LAVV was reoperated 1 month after surgery for LAVV insufficiency. After a median follow-up of 4,56 (2,6 to 12,2) years, all the patients are in NYHA class I, with no medication. Echocardiography shows moderate LAVV insufficiency in 2 cases.

Conclusion: Surgical repair of PAVC in the first year of life is feasible with excellent mid-term outcome, even in cases with a small LAVV. Patients with “parachute like” LAVV may experience significant regurgitation necessitating reoperation.

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Syncope unit in pediatric population: a single center experience

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