

## MP4-14

### Absorb Bioresorbable stents in children : indications, initial experience and mid term results

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#### Background

Stents are used in various indications in the paediatric population. Bioresorbable stents are of great interest in this growing population because growth of the vessel is theoretically preserved. Little is known about the behaviour of these stents in children and in other vessels than coronaries. We report our experience with Absorb bioresorbable stents  (Abbott).

#### Material and methods

All patients who received a resorbable stent between July 2015 and May 2016 were reviewed. Demographics, indication for cardiac catheterisation and for stenting, type of stent and medium term results are reported.

#### Results

Between July 2015 and May 2016, 16 children had Absorb stent implantation. Mean age was 6.3 years (3 days-16.3 years). Mean weight was 21.8 kg (3-55 kg). Mean BSA was 0.79 (0.21-1.64). Indications for stent implantation were: coronary artery stenosis in 6 patients (post arterial switch : N=3, post coronary reimplantation : N=2 ; post Kawasaki disease : N=1), pulmonary artery stenosis in 5 patients (post operative PA stenosis : N=3, 1 LPA stenosis in unoperated neonatal Tetralogy of Fallot, 1 lobar stenosis in arterial tortuosity syndrome), PDA stent after perforation of pulmonary atresia in a neonate and stenosis of various arteries in 4 patients. Amongst these patients, there was 1 patient with diffuse inflammatory arteritis, 1 mid aortic syndrome, 1 renal artery stenosis and 1 neonatal aortic coarctation. Primary success was reported for all patients with good angiographic results and no effraction. 11 patients had a second elective catheterisation: 3 stents failure were noted: 2 stents fracture (one in the PA, one in the aortic neonatal coarctation) and one intrastent proliferation in the aorta and renal artery in a patient with inflammatory arteritis were observed. These patients had further stenting during the second procedure. Diameter of stents used were 2, 5 mm (N=5), 3 mm (N=6) and 3,5 mm (N=13).

#### Conclusion

Resorbable stent is an alternative to conventional stent in small children and coronaries in children. Intermediate results are more than satisfactory. In this small series, 3 mid- term failures were noted. Careful follow-up and second catheterisation has to be considered if bioresorbable stent is implanted.