

P-312

Transcatheter closure of patent Ductus Arteriosus in children weighing 8 Kg or less: a single center experience

Ballesteros F., Nuñez M.T., Zunzunegui J.L., Panadero E., Rodriguez R., Medrano C, Centeno M Gregorio Marañón Hospital. Madrid. Spain.

Introduction:

Transcatheter occlusion has become an effective therapy in most patients with patent ductus arteriosus (PDA). Procedure complications and technical difficulties have been related to lower body weight patients, especially with large shunts. We reviewed clinical outcomes of transcatheter closure of PDA in children weighing less than or equal to 8 kg in a single center.

Methods:

Between January, 2004 to December, 2011, 135 patients with PDA underwent transcatheter closure in our institute. Among them, 37 weighed less than or equal to 8 kg, All these patients, underwent transcatheter closure of PDA using either Amplatzer duct Occluder (ADO) Type I or II, or Amplatzer Septal Occluder (ASO). A retrospective review of the treatment results and complications was performed.

Results:

The mean age of patients was $8,8 \pm 5.9$ months (median, 9 months) and the mean weight was 6 ± 1.7 Kg (median 6.3 Kg), with 12 of 37 (30%) weighing less than or equal to 5 kg. The average minimum PDA diameter was 3 ± 1.2 mm (median 3mm). Devices implanted were ADO I In 31 patients (83.33%), ADO II in 6 patients(16.67%), and ASO in one. Immediate complete occlusion occurred in 26 patients (70%), with no more than minimal residual shunt in the rest. None required surgery. 3 children (8%) had procedure related complications (mean weight 4 ± 0.6 Kg); mild narrowing of descending aorta was produced in 2 cases (immediate gradients of 10 mmHg and 15 mmHg); and mild narrowing of left pulmonary artery (LPA) in one (maintaining peak systolic velocity resulting in 20 mmHg in the 2 years echo control).

Conclusions:

We consider transcatheter closure of PDA as a safe and effective therapy in infants weighing less than or equal to 8 kg. With sufficient experience, transcatheter closure of PDA can also be accepted as the gold standard of treatment for this group of patients.