

90. PERCUTANEOUS CLOSURE OF NEONATAL COMPLEX VSD WITH THE NEW KONAR-MF MULTIFUNCTIONAL OCLUDER DEVICE

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Percutaneous closure of ventricular septal defect (VSD) is a successful therapeutic modality but remains challenging particularly in small patients. Congestive heart failure presentation in neonates with VSD is commonly associated with other complex lesions requiring surgical treatment without VSD resolution.

We will demonstrate the feasibility and effectiveness of percutaneous VSD closure in neonate patients with associated congenital heart diseases using KONAR-MF multifunctional occluder device (MFO).

We report 3 neonates under 4 kg weight with congenital heart diseases and non restrictive VSD with severe haemodynamic failure whom required percutaneous VSD closure at early post surgery stage.

A four month old baby, 5 kg weight, with congestive heart failure post Switch operation with residual moderate gradient at neopulmonary level was diagnosed a 5mm non restrictive muscular VSD at catheterization procedure. Therefore transcatheter closure was successfully performed with a 6-4 MFO occluder by venous antegrade right ventricular direct VSD approach, 5F sheath without arterial puncture. Non residual shunt was evidence.

A 15 days, 3 kg weight neonate with critical aortic stenosis and aortic coarctation undertook an effective valvuloplasty and coarctation angioplasty. Non restrictive 8 mm muscular VSD was showed at the procedure and surgical aortic coarctation correction was performed four days after. Because of severe heart failure, VSD transcatheter closure was attempted with a 10-8 MFO occluder by antegrade approach through the foramen ovale by 5F sheath avoiding arterial puncture.

The last patient, one month old, 2,9 kg weight, post surgical correction of Totally pulmonary venous anomaly and muscular VSD. Because of severe heart failure the residual 5 mm muscular VSD was closed with a 8-6 MFO occluder, venous approach through the foramen oval, 4F sheath.

After VSD closure the patients did well, but the first one went on sepsis and died three weeks later.

Conclusions: Neonates with congenital complex heart disease and associated VSD are difficult to solve by only one surgical approach. Percutaneous VSD closure with new Konar-MF (MFO) nitinol low profile occluder is an effective and safe alternative of treatment in this challenge group of patients

91. ENDOVASCULAR INTERVENTION IN PATIENTS WITH UNIVENTRICULAR PHYSIOLOGY: RISK FACTORS AND MEDIUM-TERM MORBIDITY AND MORTALITY

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Introduction: Patients with univentricular physiology merit different interventions during their evolution and management, whose final objective is to achieve an adequate balance between pulmonary and systemic flow with a reduction in postload of the systemic ventricle. Many of these procedures can be performed endovascularly, however there is little existing literature on the overall analysis of these patients.

Materials and methods: In order to evaluate the medium term results in a group of patients treated at our institution, we conducted a retrospective study over a period of 2 years. The following data were investigated: demographic, main diagnosis, palliation stage, types of surgery, type and number of hemodynamic procedures, complications and results one year after the procedure. A summary and description of the variables was carried out and they were analyzed taking morbidity as a dependent variable.

Results: A total of 111 patients underwent cardiac catheterization during the period studied. The majority were males (63.5%), with a median weight of: 10 Kgrs and 11 months of age. The most frequent heart diseases were: Atresia tricuspidae (30%), Hypoplastic left heart syndrome (SVIH) (18.8%) and pulmonary atresia (13.5%). 75.6% of the catheterizations were therapeutic, of these the most performed procedures were: Collateral embolization (64%), balloon angioplasty (16%) and stent angioplasty (11%). There were no deaths related to catheterization. The complications in general were 10%, of which the majority (88.25%) were minor, with arrhythmias being the most frequent. Major complications were observed in 1.75% (3 cases), with stent