



UTILITY OF LIFETECH MFO KONAR VSD OCCLUDERS FOR LARGE HYPERTENSIVE TUBULAR PDA IN SMALL CHILDREN AS EFFECTIVE ALTERNATIVE TO DOUBLE DISK MUSCULAR OCCLUDERS

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Background:

PDA device closure is always challenging in Large Tubular Hypertensive PDA. Major safety concerns remain when applied to children with large PDA and challenging anatomy. Usual strategy to close these Hypertensive PDAs using Double disk Muscular Occluders. We aimed to report our experience with the new Konar-MF™ ventricular septal defect (VSD) occluder for transcatheter closure of large Tubular Hypertensive patent ductus arteriosus (PDA) in small children as an alternative to Muscular VSD occluders.

Methods:

Children in whom PDA occlusion was attempted using the Konar-MF™ VSD occluder were analyzed to review procedural characteristics and outcomes.

Results:

A total of 15 implantations were performed [age: 2-12 years of age], weight [8-35 kg], diameter: 10.6 ± 1.0 (9-12.0) mm, ductal length: 13 ± 0.6 (10-18) mm]. Successful device implantation was achieved in all cases without major complications. Early device embolization occurred in 1 case with safe percutaneous device removal. In that case, a second Konar-MF™ VSD occluder was implanted with an excellent outcome. Over a median follow-up of 12 (6-25) months, all patients are asymptomatic, with complete occlusion and no delayed device-related complication.

Conclusion:

Transcatheter closure of large Hypertensive Tubular PDA using the Konar-MF™ VSD occluder appears to be feasible, effective and safe in children. This device proved to be effective alternative to Muscular VSD occluders where routinely using in Tubular Hypertensive PDAs in terms of technique, vascular access, patients with IVC abnormalities (Interrupted IVC etc) and results. This device might be an alternative to other devices in carefully selected children, although that remains to be confirmed by extensive experience and long-term outcomes data.