



INITIAL LATIN AMERICAN EXPERIENCE WITH THE NEW KONAR-MF OCCLUDER IN CONGENITAL HEARTS DISEASES

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Background:

Device closure is now an accepted modality of treatment for cardiac septal defects, patent ductus arteriosus and other non-septal defects with well accepted indications. Devices used for these defects have usually not been specifically designed for use in closing these defects. The Konar MF occluder is a woven nitinol mesh self-center device with two discs joined by an articulated arm which let that the device adapt to any anatomical defect.

Our purpose is to assess the feasibility use of this device as well as the short and mid-term results in cardiac septal and non-septal defects, other cardiac vascular defects although it has not initially been prototyped for use in such conditions

Methods:

From October 2017, 108 patients in the age group 1month- 67yr, were treated percutaneously with the MFO occluder device for various conditions. All patients were > 2,5 kg and had clinical defect closure indication. The cardiac diseases were 3 anatomical groups: Ventricular septal defects (VSD) n=55, patent ductus arteriosus (PDA) n=40, and Miscellaneous as Out tract right ventricular flow occlusion (OTRVF) n=2, Blalock Taussig shunt n=1, Total Cavo-pulmonary bypass fenestration n=2, Arterio-venous Fistula embolization n=1 and Periprothestic valvular leak occlusion n=1. Successful results graduated as none or minimal shunt immediately and 24 hours post intervention, moderate or large shunt unsuccessful. Follow up at a week, 1 month, 3, 6 and 12 month.

A t-test or student test has been used for statistical analysis

Results:

Successful occlusion as signified by no residual shunt immediately or till 24 hours was achieved in all but two patient: VSD closure in 54 of 55 patients. Three patients weighed less than 5 kg had associated complex congenital heart disease. VSD type were 65% perimembranous and 40% muscular, one of these anterior infundibular subpulmonary VSD was closed by retrograde way. Gerbode type were 4 of them, 3 residual post-surgical closure in Tetralogy of Fallot. The average of right waist was 5.07 mm(+/-1,52), the left waist was 7.07mm(+/-1,52). Procedures were successful in 54 of 55 pt with trivial or not residual shunt (97%). The failed procedure was in a large muscular VSD but transient AV Block was present.

The patent ductus arteriosus procedures were successful with complete closure immediately. Krischenko type A ductus in 35, type C in 3, D and E 2 pt each one. Anterogradely approach was



used in 28 and retrogradely in 12. There was one embolization device in a patient with type C patent ductus that could be retrieved without complication.

The OTRVF occlusion has been done in 2 pts with Tricuspid Atresia with nonfunctional bi Cavopulmonary Glenn anastomosis because of antegrade





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