OFF LABEL USE OF KONAR-MF™ OCCLUDER FOR TRANSCATHETER CLOSURE OF PATENT DUCTUS ARTERIOSUS IN UNUSUAL CIRCUMSTANCES: MULTICENTER STUDY

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Background:

Trans-catheter closure of PDA with unusual shapes like large tubular or tubular with multiple constrictions or with unusual circumstances like an interruption of inferior vena cava (IVC), significantly dilated pulmonary arteries is still challenging. This study evaluates the use of KONAR –MF ™ for transcatheter closure of PDA in such circumstances.

Objectives:

To evaluate the use of KONAR –MF ™ (Lifetech Scientific Co Ltd, Shenzhen) device for transcatheter closure of patent ductus arteriosus (PDA) with different shapes and unusual circumstances.

Methods:

Between January 2021 to October 2021, 24 patients from three different tertiary care centres who underwent PDA device closure using KONAR –MF ™ device were included in the present study. Patient demographics, echocardiographic assessment, procedural details including the approach, device details, complications, and follow-up data were recorded.

Results:

The procedure was successful in all patients (100%). The indications for using KONAR- MF were 1) unusual shapes of PDA (N = 14), long tubular PDA in 8 and long tubular with multiple constrictions in 6 patients, II unusual circumstances(N=10): interrupted IVC in 4. PDA could not be crossed antegradely in 3 due to dilated main pulmonary artery (MPA) and 3 patients had small PDA when we anticipated difficulty to negotiate the delivery sheath. One patient had flow acceleration across the left pulmonary artery without a significant gradient.

Conclusion:

KONAR –MF ™ device can be used effectively for transcatheter closure of PDA with unusual anatomy or in unusual circumstances.