



TRANSCATHETER CLOSURE OF SMALL PATENT DUCTUS ARTERIOSUS WITH RETROGRADE TECHNIQUE : A CASE SERIES

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Background:

Transcatheter closure of patent ductus arteriosus (PDA) is the accepted standard and the safest interventional cardiac procedure. PDA is conventionally closed by an antegrade method, which crosses PDA from the pulmonary artery (PA) side. This common procedure might not work in some patients and a retrograde approach is taken as other choice of PDA closure procedure. We describe the steps involved in the retrograde approach of the PDA closure and its follow-up outcomes.

Objectives:

To present cases of retrograde approach during transcatheter PDA closure as an alternative way of an unsuccessful conventional method.

Methods:

Two patients, a 1-year 3-month-old girl and a 3-year 7-month-old boy, diagnosed with PDA by transthoracic echocardiography (TTE) underwent a conventional PDA closure. The PDA was attempted to cross from pulmonary end to aorta but was unsuccessful because the diameter of the PDA were too small. Retrograde approach from the aorta side has been done as the second option of the PDA closure procedure.

Results:

Immediate evaluation confirmed good outcomes such as no residual shunt, no left pulmonary arterial stenosis, and no coarctation of the aorta. Similar findings were found on 24-hour, 1-month, and 3-month follow-up after the procedure, as well as no significant complications were detected.

Conclusions:

Both small PDA closed retrogradely as an alternative way of the unsuccessful conventional method showed satisfactory outcomes.