



## THE COMPLICATION OF PATENT DUCTUS ARTERIOSUS TRANSCATHETER CLOSURE

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### **Background:**

The treatment of choice for Patent Ductus Arteriosus (PDA) is transcatheter closure. Transcatheter PDA closure shows a high success rate, good clinical outcomes, and low rates of life-threatening complications, however some complications still can occur during and after the procedure, including embolization, hemolysis, and the narrowing of adjacent vessel in certain cases.

### **Objectives:**

To evaluate the complication of transcatheter closure of PDA during and after the procedure

### **Methods:**

An observational analytic study with a retrospective cohort design was applied to the medical record of the patients with PDA that underwent transcatheter closure since January 2019 until December 2020 in Dr. Soetomo General Hospital Surabaya, Indonesia. We recorded the data about patient characteristics, PDA size, type of device used, complications immediately after the procedure, 1 day, 1 month, 3 months, 6 months, and 12 months follow up after the procedure including residual shunt, device embolization, obstruction of the left pulmonary artery (LPA) and descending aorta (DAO), and hemolysis.

### **Results:**

There were 101 children with PDA who underwent transcatheter closure, including 33 male and 68 female, with a median age of 4.3 years (range 0.33 – 18 years), and a median body weight of 15.4 kg (range 5-45 kg). Median PDA diameter was 3.4 mm (range 2-7.5mm). The type of devices used were ADO-1 65 (65%), Konar MFO 19 (19%), ADO-2 15 (15%), and PDA Nit Oclude 2 (2%). Small residual shunt was found immediately after the procedure in 8 (7.9%) children. Complete closure was found in 101 (100%) after 1 month of follow-up. No device embolization, nor obstruction of LPA and DAO was reported.



**Conclusion:**

No significant complication was found in our PDA patients who underwent transcatheter closure. All patients showed complete closure after 1 month of follow-up and good clinical outcomes.

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