

Transcatheter closure of patent ductus arteriosus in adolescents and adults: a case series / Sukman Tulus Putra, Mulyadi M Djer, Nikmah S Idris, Sudigdo Sastroasmoro

Sukman Tulus Putra, author

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Abstrak

ABSTRAK

During 11 years period from January 2005 to December 2015 there were 18 adolescent and adult patients who underwent transcatheter closure of PDA using PDA Amplatzer Duct Occluder (ADO). There were 9 cases with age of 14 to 18 years and 9 cases with age of more than 18 years where the oldest case was 46 years old. Two cases were male and 16 cases were female. Prior to procedures, clinical assessment, ECG, chest x-ray and transthoracic echocardiography (TTE) were performed to confirm the diagnosis of PDA. The procedures of device implantation was performed under conscious sedation in adults and using general anesthesia in adolescents. The size of PDA ranged from 1.6 mm to 11.1 mm. Based on Kritchenko classification, the type of PDA were 15 type A1 and 3 type A2. Flow ratio between pulmonary to systemic circulation was between 1.1 and 5.9. The procedure time ranged from 60-189 minutes and the fluoroscopic time 7.1-77.3 minutes. The PA pressure ranged from 22 to 63 mmHg. Immediate results after procedures as seen in angiography showed complete closure in 14 cases and smoky residual shunt or minimal residual shunts in 4 cases, which probably due to the temporary leaking through the devices. In 24 hours, complete closure was achieved in all cases (100%) and continued until 1 months. At 6 month follow up, there was no residual shunts detected and also there was no significant complications, such as device embolization or recanalization.

This case series suggest that transcatheter closure of PDA in adolescents and adults using Amplatzer duct occluder (ADO) is effective and has excellent results without significant complication. However, long-term follow up is required to assess long term efficacy and safety.