

Percutaneous PDA stenting in newborns with duct dependent pulmonary circulation and Univentricular Heart Physiology

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Background: Surgically Creation of a aortopulmonary shunt is still high mortality and morbidity in newborns. Percutaneous stenting of ductus arteriosus is an alternative way in order to supply blood to the pulmonary arteries in duct dependent circulations. Here we report single center experinces with ductus stenting and investigate the efficacy of procedure in newborns with univentricular heart physiology.

Patients and Methods: Between 2014 july and 2015 November ,52 procedures were performed in 46 patients. Fourty of patients had univentricular heart physiology. In 47 of 52 (90%) stents were implanted sucessfully. Procedure related mortality occured in 2 (%3,8) patients. Mean follow up duration 134.5 months. Reintervention need due to early stent restenosis in three patients (%6). Seven patients (7/46, 15%) died during interstage period. One patient died after Glenn operation. 15 of patients with univentricular heart physiology still waiting for Glenn operation. In 17 (%42) patients bidrectional cava pulmonary anastomosi was performed succesfully.

Conclusion: Percutaneous stent implantation in ductus arteriosus less invasive, feasible method. Early mortality is lower than the surgical aortopulmonary shunt. However interstage mortality rate is still high and patients should be monitored closely.