

Percutaneous PDA closure in Extremely Low Birth Weight Babies

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Aim:

Patent Ductus Arteriosus is an important cause of morbidity and mortality in preterms. As birthweight decrease, risks increase. Main aim of our study is to emphasize the effectiveness and safety of percutaneous PDA closure even in extremely low birth infants (less than 1000gr)

Material Method

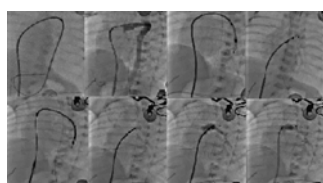
In our center between the dates June 2014-December 2015, PDA of eight patients less than 1000gr were closed percutaneously. To our knowledge this study includes the largest cohort of infants less than 1000g in the literature, whose PDA were closed percutaneously.

Results

Symptomatic patients, less than 1000gr having PDA were included in the study. All have 3 times medical therapy for PDA closure but it did not work. PDA was decided to be contributor of this medical state of them. The mean patient age 16 ± 5.9 days. The mean weight of patients was 923 ± 75.9 gr. Mean gestational age was 27.2 ± 1.28 weeks. Mean PDA diameter was 2.48 ± 0.5 mm. Mean Qp/Qs was 1.7 ± 0.2 . Morphology of PDA: 5 of them were conical and 3 of them were tubular. In all patients ADOII-AS device were used for PDA closure (Table1). Steps of percutaneous PDA closure procedure was shown by Figure 1. In all patients, we have done closure by venous route. We did not ever used arterial route in 4 patients. There were no major complications reported. Left pulmonary arterial stenosis was detected in 2 patients which were all resolved in 6 months duration.

Conclusion:

Interventional catheterization procedures are more commonly used, in the recent years. The advantages of percutaneous PDA closure include a high success rate, shorter length of hospital stay, reduced blood loss, low morbidity rate, and no traumatic scars. Since the length of hospital stay decreases with catheterization, it is much more cost-effective than surgery. We want to emphasize that in experienced centers percutaneous closure of PDA can be an alternative to surgery even in the extremely low birth weight babies..



	Gestational week	Gender	Age (day)	Weight (gram)	PDA Type	PDA Size (mm)	Qp/ Qs	Device type	Device diameter	Floroscopy Time(min)
1	28	Female	15	980	conical	3.5	1.9	ADOII-AS	5x2	21
2	29	Male	24	910	conical	2.4	1.5	ADOII-AS	3x2	8
3	27	Male	10	978	Tubular	1.7	1.66	ADOII-AS	3x2	12
4	28	Female	21	930	Conical	2.5	2.1	ADOII-AS	4x5	20
5	28	Female	10	970	Tubular	2.5	1.6	ADOII-AS	4x2	8
6	26	Female	10	750	Conical	2	1.7	ADOII-AS	3x4	19
7	27	Female	23	820	Conical	3	2	ADOII-AS	4x2	10
8	24	Female	15	960	Tubular	2.2	1.7	ADOII-AS	3x2	13