Immediate and Intermediate Results of Patent Ductus Arteriosus Transcatheter Closure in Kurdistan (Multicenter experience)

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Background: A retrospective study to review our experience and determine the efficacy and safety of transcatheter closure of patent ductus Arteriosus in all three cardiac centers in Kurdistan, using the Amplatzer Duct Occluder type I and II (ADO) for the first time in Kurdistan.

Patients & Methods:
A total of three hundred and nine patients which include (228 females & 81 males) were diagnosed to have PDA, between March 2008 to February 2011 in all three cardiac centers in Kurdistan namely (Hawler, Sulaimany and Duhok cardiac centers), where they underwent Transcatheter closure of the PDA with ADO type I and II. The common ages on closure was 1-5 years (range 5.5 months to 32 years), and weight ranged from 6kg to 58kg. We retrospectively analyses medical records, echocardiography, angiographic and hemodynamic data and follow up results of the patients. Patients included in the study was according to standard recommendation for transcatheter closure of PDA, in which ages was above 6kgs with no pulmonary hypertension, interrupted IVC and the anatomy feasible for closure.

Results:
Among 309 cases did cath procedures, the ratio of female to male ratio was 2.6:1 and the age of doing PDA closure at time of procedure was between 5.5months to 33 years, the mean age is (6.3 +/- 6.5 years)and the weight range between 6kg and 58kg, mean of (11.5 +/- 7.5 kg). The most commonly used device is Amplatzer I PDA device with high closure success rate of 97.1% after 6 and 12 months follow up and the first cases of Amplatzer II PDA Device closure done in Iraq and Kurdistan. There was immediate & complete closure in 271 on angiography. Complication was noted as embolized PDA device to right pulmonary artery (RPA) in two patients, one of them retrieved by cath and other one by surgery.

Conclusion:
Transcatheter Amplatzer duct occluder is safe and effective in closing PDA in most patients with PDA even large as much as 10 mm and new Amplatzer PDA II device allows small delivery sheath in which can be done for children with less than 6kg with less complications.