RETROGRADE TRANSCATHETER CLOSURE OF PERIMEMBRANOUS ANEURYSMAL VENTRICULAR SEPTAL DEFECTS USING AMPLATZER VASCULAR PLUG II

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Abstract:
Introduction:
Retrograde transcatheter closure of perimembranous aneurysmal ventricular septal defects (pm VSD) can be a better option due to device placement into septal aneurysm with fewer complications. Also retrograde approach might decrease procedure time and radiation exposure time.

Aim of the work: The purpose of our study is to report off label experience using Amplatzer Vascular Plug II for closure of perimembranous aneurysmal VSD. Material and method: Our series consist of fifteen child patient with perimembranous aneurysmal ventricular septal defect. The mean age was 4.9 years (range 1.2–10), mean LVEDD 38.3 mm. Maximum and minimum defect sizes were 4 and 8 mm by transthoracic echocardiography (mean defect size 5.2 mm). The procedure was performed under general anesthesia with left heart catheterization for retrograde closure of the defect.

Results: All subjects who met the inclusion criteria were sent to the catheterization laboratory. Following left ventricular angiogram, three patients were excluded as technically non-feasible. Failure to cannulate the defect in one patient and deficient aneurysmal tissue during LV angiography in two cases. The device was successfully deployed in 12 children with retrograde technique. In two patients antegrade approach using ADO I device for closure due to deficient aneurysmal tissue. The complete VSD closure rate was 84% immediately, 92% at 24 hours, and 92% at the last follow-up. Atrioventricular conduction system was not affected by the procedure in any patients. Arterial complication developed in two patients. There was no device embolization, no aortic regurgite develop in any patient.

Conclusions: Retrograde transcatheter closure of aneurysmal perimembrane VSDs using AVPII is safe and effective alternative method which allow closure of wider range of VSDs due to availability of wide ranges of AVPII sizes up to 18 mm in diameter. Retrograde approach also can simply the procedural with less fluoroscopy time.

Biography:
She is a Cardiology consultant at National Heart Institute in Egypt. She completed her masters Doctrol in Cariou University. Currently she is working as a Pediatric Congential Heart Disease Department in Heart Institute in Egypt.

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