Transcatheter Closure of Atrial Septal Defect by Amplatzer Occluder Devices [ASO] In Benghazi Cardiac Center

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Objective
Our study reports the clinical experience and outcome of transcatheter closure of atrial septal defect done in Benghazi Cardiac Center. Significant atrial septal defects are closed surgically or through a transcatheter device, in order to avoid pulmonary hypertension in late life.

Methods
During a 5 years period between December 2004 and December 2009, 68 ASD patients were referred to Benghazi cardiac center for possible transcatheter closure with ASO. 17 patient were excluded for TCC, 10/17 patients after TOE evaluation [in which 4 with small defect, 4 with large ASD, 2 with deficient inferior rim], 7/17 after angiographic, balloon sizing and TOE. TCC with ASO done in 51 patients [35 female and 16 male] All procedure carried out under general anesthesia & fluoroscopy guide and TOE control. The selected device was 1 to 2 mm larger than the maximum defect size. The physical examination and TTE were performed prior to procedure and follow up [0,1,3,6,12 months and yearly after].

Result
Patients age between 3.5 - 61 years, and weight between 15 - 108 kg, diameter of ASD 6 – 3.2 mm. 42 patients with single defect, 4 with 2 ASD, 5 with fenestrated ASD. The size of device range 8 - 34 mm [ASO, PFO and cribriform device].

Conclusion
The Amplatzer septal occluder is an effective ASD transcatheter treatment device. Careful and detailed patient evaluation and selection of an ASO of appropriate size are important factors for success and avoidance of complication. The atrial septal aneurysm which is frequently associated with multiple fenestrated defects is not problem for transcatheter closure.