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**Transcatheter atrial septal defects closure without balloon sizing.**

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Introduction: transcatheter closure of secundum type atrial septal defects (ASD) is a valid alternative to surgery. Balloon sizing of ASD allows a careful choice of the device, but has also been associated with overstretching of the defect. Recent studies show that transcatheter closure without balloon sizing is safe and feasible and several equations to define device size on the basis of transthoracic (TTE) or transoesophageal echocardiography (TOE) have been proposed. The objective of our study is to report our experience with ASD closure with and without sizing.

Methods: between May 2006 and December 2011, 59 patients (aged 4 to 81 years) affected by ASD underwent transcatheter closure. Patients with patent foramen ovale were not included. All patients underwent TTE and TOE. 43 patients (group A) underwent to closure of ASD with balloon sizing and the last 16 (group B) without sizing.

Results: In group A mean maximal ASD diameter estimated by TTE was 15 mm (6-30 mm), TOE 14 mm (4-31 mm) and stretched diameter was 19 mm (6-30 mm). The mean diameter of devices was 20 mm (7-34 mm). In group B mean TTE diameter was 13mm (4-31 mm), 13mm (range 4-31mm) with TOE, the mean diameter of device was 14 mm (7-28 mm). In both groups there were no adverse effects secondary to device implantation, and there were no residual defects.

Conclusions: the closure of ASD without balloon sizing is feasible, safe, allows the use of smaller devices, and finally is cheaper.