MIDTERM FOLLOW-UP RESULTS OF TRANSCATHETER INTERATRIAL SEPTAL DEFECT CLOSURE

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BACKGROUND

Safety and efficacy of transcatheter atrial septal defect (ASD) closure is known to be dependent on operator experience. Particularly, the learning curve regarding device sizing may influence procedural outcome.

OBJECTIVES

We studied immediate and midterm results of transcatheter ASD closure using the Amplatzer device in our highly experienced center.

MATERIALS AND METHODS

The study included 137 patients (31 male and 106 female; mean age 8.0±7.3 years; range 1–65 years) who underwent transcatheter closure of secundum ASD between October 2014 and October 2016 in our center. All patients were evaluated by transthoracic echocardiography before and during the procedure. In adult patients transesophageal echocardiography was performed before and during the procedure. All interventions were performed under general anesthesia. Follow-up was conducted at the day after procedure, 7 days later as well as 1, 3, 6, and 12 months following the procedure and annually thereafter. The median follow-up period was 15 months.

RESULTS

The mean ASD and device size were 14.5±3.3 mm and 16.3±4.2 mm, respectively. The mean procedural and fluoroscopy time were 21.3±4.7 min and 5.1±1.9 min. Major complications including death, bleeding, fatal arrhythmia and device embolization did not occur during or after the procedure. Cardiac arrhythmias occurred in 4 patients during the first month after the procedure. Importantly, no device embolization were observed during the follow-up and no residual shunts were seen after procedure. Transient ischemic attack occurred in one patient during the procedure and in one patient 2 days after the procedure without longterm sequela.

CONCLUSION

Transcatheter ASD closure using the Amplatzer devices is an efficacious and safe therapeutic option and had low complications and could done in suitable patients.