

## MP4-9

### Cardiac Erosion after the Transcatheter Closure of Atrial Septal Defect Using Amplatzer Septal Occluder: Japanese Nationwide Experience

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Introduction: Catheter closure of atrial septal defect (ASD) is an accepted highly successful alternative to surgical repair. In catheter closure of ASD using Amplatzer Septal Occluder, a cardiac erosion followed by a pericardial tamponade is an infrequent but potentially lethal complication and is difficult to speculate to occur especially before the device deployment. We retrospectively reviewed Japanese Interventional Pediatric Cardiology (JPIC) and Cardiovascular Intervention and Therapeutics (CVIT) database to clarify the incidence of cardiac erosion in Japan. These database includes all procedures performed, as well as all complications in Japan.

Methods: Since August 2005 to December 2015, 7223 patients underwent transcatheter closure of ASD using Amplatzer Septal Occluder in Japan. Among this cohort, 13 patients (0.18%) developed cardiac erosion. Erosion occurred from 1 day to 6 years after the procedure. Significant hemodynamic intolerance due to cardiac tamponade developed 2 patients. Three of 14 were developed erosion before the discharge hospital (within 3 days), rather remaining 10 patients developed after the discharge. Age at procedure ranged from 7 to 63 years, without specific high risk age. No procedure related death was observed in Japan. Individual information was indicated in table. In our data base, definite risk factor related cardiac erosion could not be clarified.

#### Results:

Subject	Site Reported Adverse Event Type	Days from Implant to Event	Age (years)	Device Size (mm)
1	Cardiac Erosion with tamponade	136	13	20
2	Cardiac Erosion	1	33	20
3	Cardiac Erosion	164	11	20
4	Cardiac Erosion	199	9	18
5	Cardiac Erosion	161	38	30
6	Cardiac Erosion	38	7	22
7	Cardiac Erosion with tamponade	3	44	26
8	Cardiac Erosion	17	11	28
9	Cardiac Erosion	98	47	24
10	Cardiac Erosion	83	28	28
11	Cardiac Erosion	2382	12	24
12	Cardiac Erosion	162	30	11
13	Cardiac Erosion	1	63	19

Conclusions: Compare to other information including United States, the incidence of cardiac erosion seems to be equal or slightly lower in Japan.