Objective To observe the feasibility, safety and efficacy of interventional treatment in patients of secundum atrial septal defect (ASD) with atrial septal aneurysm (ASA).

Methods 189 patients of ASD with ASA (82 males and 107 females, average age (30.2±15.8) years, range 10–68 years old) were selected by the clinical, ECG, x-ray, transthoracic electrocardiogram (TEE) examination from January 2003 to April 2011 in our hospital. Diameter of ASD were 4–38 (22±8) mm measured by TTE maximum from different facets, 178 patients with single-hole type, porous type in 11 cases, Amptatzer occluders were used under the guidance of the TTE, followed up for 12 months.

Results 189 patients were occluded successfully, occluder diameter of 8–42 (24±4) mm, 8 cases with porous type were selected just a occluder, 3 cases with 2 defect holes occluded successfully by two occluders, no significant residual shunt and occluder loss immediately and followed up for 12 months, size of atroventricular reduced.

Conclusion Occluder used in patients of secundum atrial septal defect with atrial septal aneurysm is feasible, safe and efficient.