A 58-year-old woman was admitted to our clinic with dyspnea and palpitation. On physical examination, S2 was widely split with a prominent pulmonary component. A systolic ejection murmur was heard at the upper left sternal edge. ECG showed atrial fibrillation. Transthoracic and transesophageal echocardiography revealed a prominent atrial septal aneurysm (16 mm) with multiple defects associated with left to right shunts (Fig. 1A). $Q_p/Q_s$ ratio was 2:1. Surgery was performed (Fig. 1B) and aneurismal septum was completely resected and replaced by an autologous pericardial patch. Resected specimen showed multiple perforations in the atrial septum (Fig. 1C).

Atrial septal aneurysm (ASA) is more frequently diagnosed due to widespread use of transoesophageal echocardiography with a prevalence of 2.2%. An ASA is diagnosed when the septum bulges into either one or both atria more than 10 mm width of base 15 mm or more. There are 4 types of ASA, ASA patent foramen ovale (type A); ASA with single atrial septal defect (type B); ASA with two perforations or few perforations located in not more than two clusters requiring placement of more than one device.
(type C); and ASA with multiple perforations located in more than two areas of the atrial septum (type D). Transcatheter closure of types A–C ASAs has been reported using different types of devices. Open surgical treatment is appropriate for type D ASAs.

In conclusion, surgical treatment is a successful choice in type D ASAs with low postoperative risks and complications.

Conflicts of interest

All authors have none to declare.