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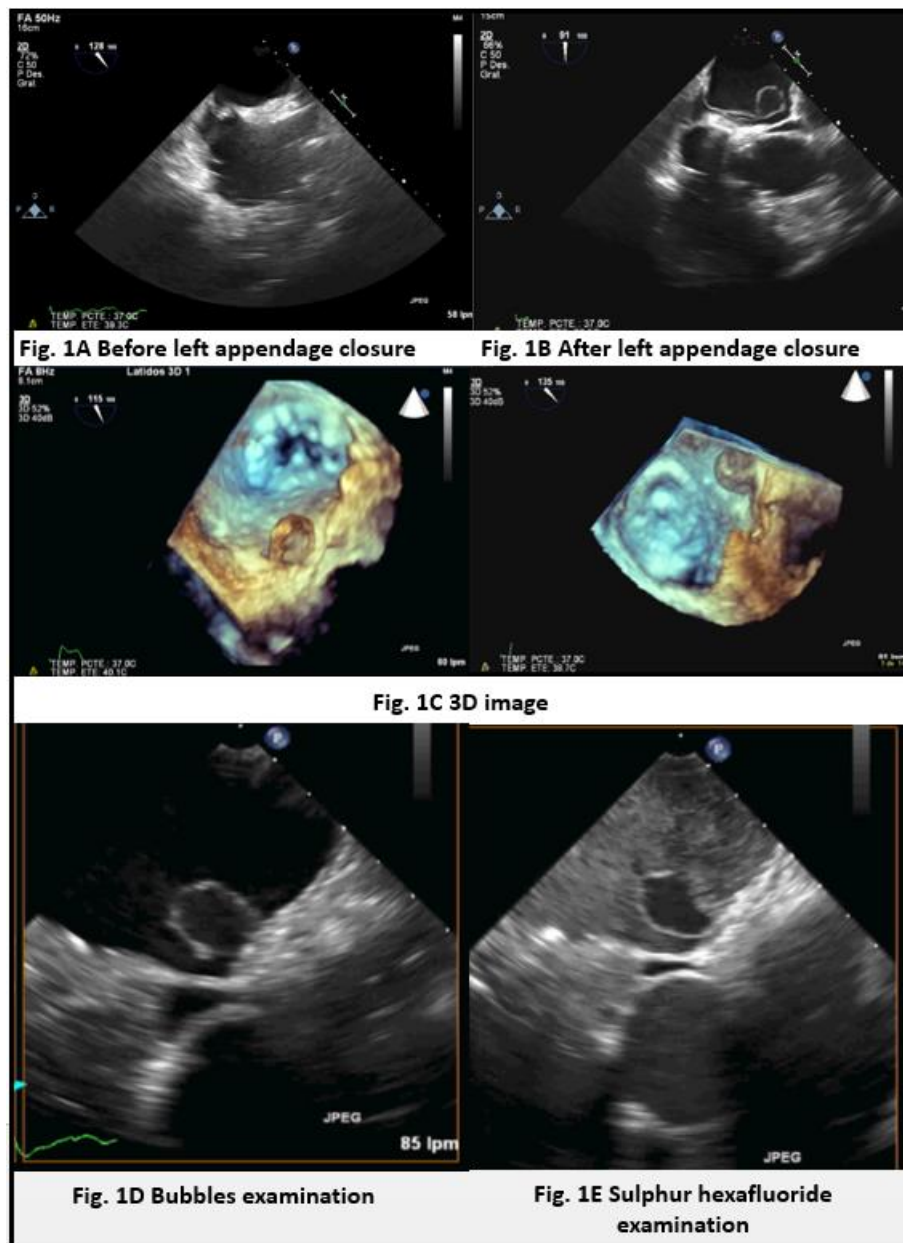
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Atrial septal aneurysm after percutaneous left atrial appendage occlusion

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Percutaneous closure of the left atrial appendage (LAA) is an alternative therapy to anticoagulation in patients with atrial fibrillation (AF) at a high risk of stroke, in whom long-term anticoagulation therapy is not possible. The procedure requires a transseptal puncture and is typically guided under transesophageal echocardiography. The described complications related to LAA percutaneous occlusion refer to: device embolization, significant pericardial effusion, and ischemic stroke and rarely significant interatrial shunt.

We present the case of a 78 years old male with permanent AF (CHA₂DS₂-VASc score of 4) and contraindication of anticoagulant therapy due to gastric ulcer with recurrent bleeding episodes and severe anemia, which underwent percutaneous LAA occlusion 1 year before the current evaluation. Routinely performed transesophageal echocardiography showed a new cystic image of 18/15 mm, attached through one pedicle to the left side of the interatrial septum, localized anteriorly to the fossa ovalis. Figure 1C shows the three-dimensional aspect of the interatrial septum 1 year after the procedure. There was no flow inside the cystic image as depicted by color Doppler flow and contrast imaging suggesting an aneurysm (Figure 1E). We did not detect interatrial flow shunt (Figure 1D).

Iatrogenic atrial septal defect is the most commonly encountered long-term finding after a transseptal puncture. However, there are no described cases of interatrial septum aneurysm as a complication after a transseptal puncture. Data regarding long term prognostic, risk of rupture and its real prevalence are unknown.

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