Left atrial septal pouch thrombus assessed on three-dimensional transoesophageal echocardiography

Mihai Strachinaru1*, Marielle Morissens1, Sophiya Latifyan1, and Isabela Costescu2

1Cardiology, Brugmann UH Brussels, 4 Place A. Van Gehuchten, 1020 Brussels, Belgium and 2Oncology, Jules Bordet Institute Brussels, 121 Boulevard de Waterloo, 1000 Brussels, Belgium

* Corresponding author. Tel: +32(0)24773709; fax: +32(0)24772632, Email: mihai.strachinaru@chu-brugmann.be

The left atrial septal pouch (LASP) is an anatomical entity that came to the attention of the medical community in 2010 when Krishnan and Salazar described it as a possible source of embolism. It is formed by the caudal fusion of the area of overlap of the septum primum and the septum secundum. The potential for thrombus formation inside this pouch remains debatable.

A 59-year-old man was admitted to our institution for cardiac failure. The patient was known to have an ischaemic dilated cardiomyopathy with a left ventricular ejection fraction of 20% and elevated filling pressures. He presented a relapse of paroxysmal atrial fibrillation. The transoesophageal echocardiogram showed the presence of a thrombus arising from a typical LASP. Spontaneous contrast was noted in the left atrium and the left atrial appendage, but no thrombus in any other LA location. The patient received anticoagulation therapy. A month later, the echocardiogram showed a LASP totally free of any echoes. There were no signs of systemic embolism. A cranial and abdominal CT scan ruled out major embolism.

Conclusion. The images presented here indirectly confirm the formation of thrombus inside the LASP in a particular clinical setting: low atrial flow due to atrial fibrillation and slowing of the pulmonary venous ‘washing’ flow due to the elevation of the left ventricular filling pressures.

The LASP is a potential source of embolism, but since it is present in nearly one-third of normal individuals, other risk factors have to be taken into consideration before implicating this anatomical feature as the cause of a stroke.

Supplementary data are available at European Journal of Echocardiography online.

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