

A LEFT ATRIAL APPENDAGE PHANTOM STRUCTURE

CHRISTODOULOS E. PAPADOPOULOS, MD, PHD¹, ATHANASIOS FOTOGLEDIS, MD¹,
EFSTATHIOS PAGOURELIAS, MD², AND VASSILIOS VASSILIKOS, MD, PHD¹

¹3RD CARDIOLOGY DEPARTMENT, HIPPOKRATEIO UNIVERSITY HOSPITAL, ARISTOTLE UNIVERSITY OF THESSALONIKI,
THESSALONIKI, GREECE

²DEPARTMENT OF CARDIOVASCULAR DISEASES, MEDICAL IMAGING RESEARCH CENTER, UZ GASTHUISBERG, LEUVEN, BELGIUM

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A 71-year-old female patient was referred for shock cardioversion following diagnosis of lone atrial fibrillation.

Transesophageal echocardiography was performed as routine workup. Interestingly a circular membrane like structure in the

left atrial appendage (LAA) was observed (Fig. 1A, Supplementary movie 1). Using 2D X plane imaging echocardiography, where an orthogonal view can be acquired through the midline of a primary image and displayed as a secondary image, an ex-

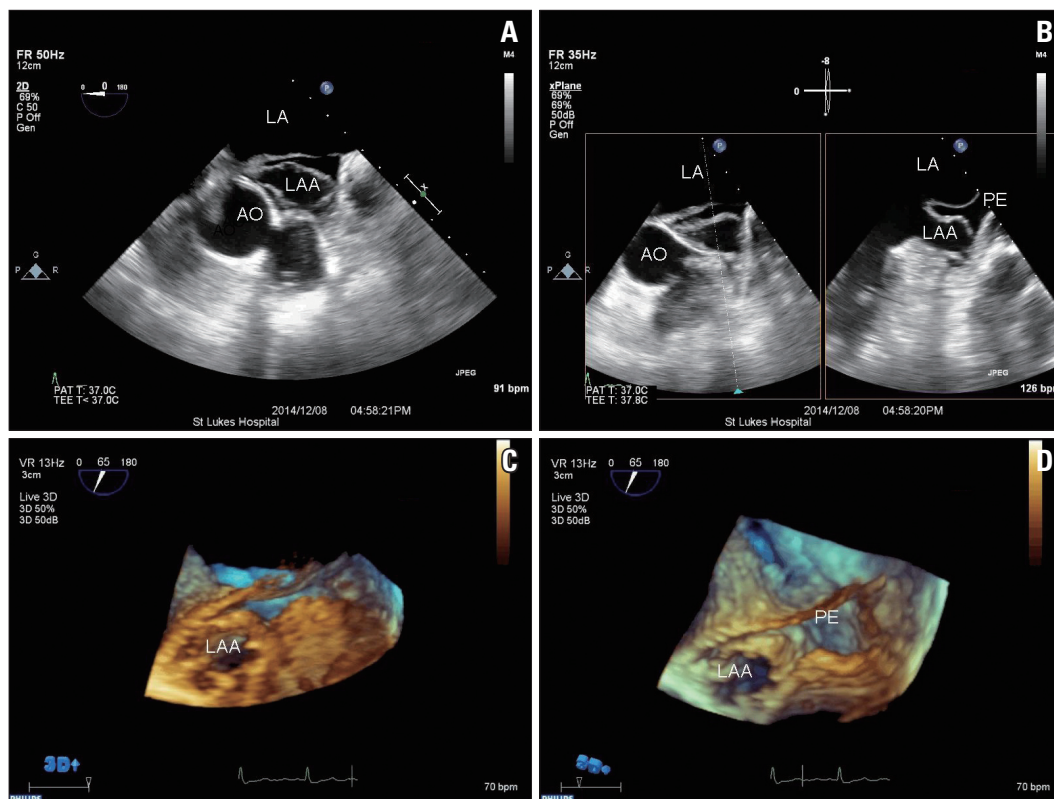


Fig. 1. 2D and 3D echocardiography imaging. A: Circular structure into the LAA. B: 2D X plane imaging of the structure. C and D: 3D echocardiography delineating LAA entrance surrounded by pericardial fluid. AO: aorta, LAA: left atrial appendage, LA: left atrium, PE: pericardial effusion.

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- Address for Correspondence: Christodoulos E. Papadopoulos, 3rd Cardiology Department, Hippokrateio University Hospital, Aristotle University of Thessaloniki, Konstantinoupoleos 49 Str, Thessaloniki 54642, Greece Tel: +30-2310-992818, Fax: +30-2310-223330, E-mail: chpapado@auth.gr
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tra thin LAA wall was evidenced showing sigmoid anatomy (Fig. 1B). Local pericardial effusion was questioned implicating that this specific structure accounted for the thin LAA wall. 3D echocardiography evidenced the entrance of LAA, surrounded by the pericardial wall at a distance, due to the presence of pericardial effusion (Fig. 1C and D, Supplementary movies 2 and 3). The patient underwent uneventful direct current shock cardioversion and remains in sinus rhythm at nine months follow up.

Cardiac magnetic resonance imaging confirmed the diagnosis of local pericardial effusion in the LAA area. No structure, thrombi or membrane were documented into the LAA (Supplementary movie 4).

Local pericardial effusion in the LAA area is an extremely rare finding.^{1,2)} It is clinically important to be aware of this benign clinical finding that should be differentiated from LAA obstructive or non-obstructive membranes or thrombi, especially in patients with atrial fibrillation undergoing cardioversion or planned for specific transcatheter therapies such as implantation of LAA closure devices.³⁻⁵⁾

SUPPLEMENTARY MOVIE LEGENDS

Movie 1. 2D transesophageal echocardiography of the left

atrial appendage.

Movie 2 and 3. 3D transesophageal echocardiography of the left atrial appendage.

Movie 4. Cardiac magnetic resonance imaging.

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