

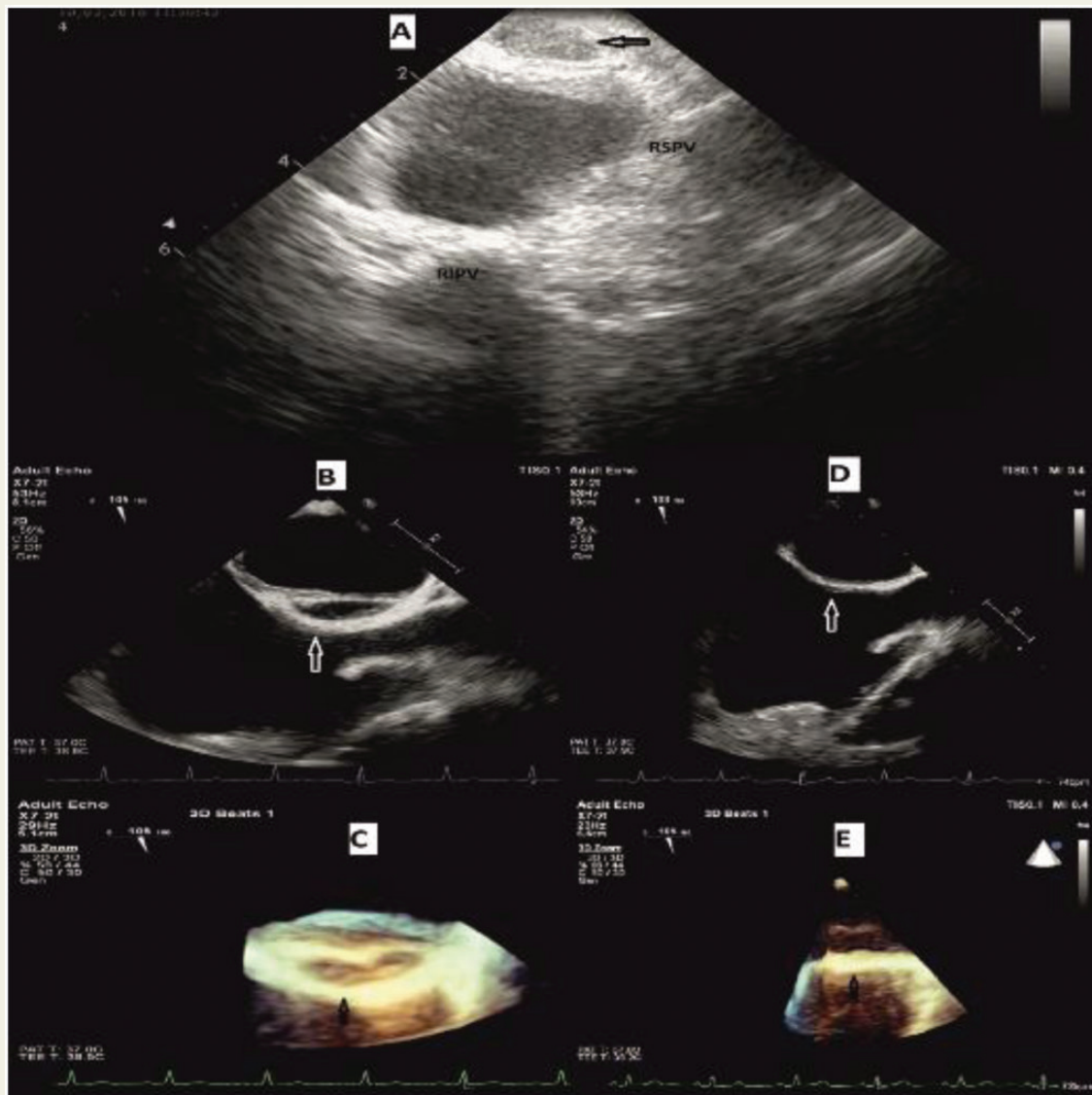
## EP CASE REPORT

# Septally located left atrial hematoma as a consequence of a steam pop

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The patient underwent point-by-point, antral isolation of pulmonary veins (PV) with an irrigated, 3.5-mm-tip catheter (ThermoCool<sup>®</sup> SF NAV, Biosense Webster Inc., Diamond Bar, CA, USA) using an irrigation rate of 15 mL/min in power-controlled mode (30 W). During the isolation of right superior PV at anterior-septal aspect an audible steam-pop occurred at 32 s of ablation time without preliminary change in impedance values or increased bubble formation on intracardiac echocardiography (ICE). At the time of steam-pop the temperature was 31°C with 30 W power and impedance of 96 ohm. Intracardiac echocardiography revealed an intramural (septal) left atrial hematoma (LAH) without any pericardial effusion (A, ICE image of the hematoma with echodense particles—black arrow. RSPV, right superior

pulmonary vein; RIPV, right inferior pulmonary vein). The patient remained asymptomatic during the follow-up. Four days after the procedure two- and three-dimensional transoesophageal echocardiography (2D-TEE and 3D-TEE) was performed and the LAH was detected without signs of progression (B, 2D-TEE image of the hematoma (19.2 × 10.2 mm)—white arrow and C, 3D-TEE image of the hematoma with lenticular shape—black arrow; 4 days after the procedure). Five months after the index procedure, the LAH disappeared completely (D, 2D-TEE—white arrow and E, 3D-TEE image—black arrow). In comparison with other LAHs reported as a complication of PV isolation (mostly located in the posterior wall), in our case the hematoma was located septally and was a consequence of a steam pop.<sup>1,2,3</sup>

## References

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3. Looi JL, Lee APW, Chan CP, Chan JYS, Chan AKY, Tong M *et al*. Intramural left atrial hematoma complicating catheter ablation for atrial fibrillation. *JACC* 2013;**62**:252.