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CARDIOVASCULAR FLASHLIGHT

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Chest pain 9 months after interventional atrial septal defect occlusion: do not forget the worst!

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Nine months after interventional occlusion of a 27 mm atrial septal defect (ASD) with an Amplatzer 32 mm septal occluder (ASO; AGA Medical), a 45-year-old man presented with chest pain. On transthoracic echocardiography, a pericardial effusion of 5–7 mm could be demonstrated.

Transoesophageal echocardiography showed fluid at the roof of the left atrium (arrow on Panel A) towards the posterior aortic wall (Panel A: LA, left atrium; RA, right atrium; AO, Aorta; *, ASO). Under the suspicion of an erosion of the LA by ASO, a CT scan was done demonstrating the density of blood in the retroaortic fluid (Panel B: arrow, retroaortic fluid, LA, left atrium; RA, right atrium; AO, Aorta; *, ASO). The indication for a surgical intervention was established after proof of haemopericardium. Through a midline sternotomy, the chest was opened and 500 mL of blood was removed. From outside the heart, two fibrotic erosions of the LA (Panel C: *) and on the posterior aortic wall (Panel C: #) could be seen macroscopically. Inside the heart, a white strain of fibrotic tissue on the right atrial side of the ASO could be seen (Panel D: arrow). The device was explanted and the ASD closed with a patch.

Erosion of the LA roof and posterior aortic wall are possible lethal complications after ASD device occlusion with ASO. As there might be a long interval between implantation and appearance of symptoms the diagnosis might be missed. Deficient anterior superior rims and the use of oversized devices are known as risk factors. Any fluid around the heart even months/years after ASO should be a striking warning not to miss a haemopericardium.

