Broken arms: a three-dimensional sight closer to the Premere device

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A 43-year-old female, symptomatic for headache, was referred to our echo-lab with the aim to control a Premere device inserted 1 year before in order to close a patent foramen ovale.

Transthoracic echocardiography revealed a mild left-to-right shunt close to the device, the origin of which was unclear (Figure 1A).

To understand better the physiopathology of the shunt, a three-dimensional real-time transoesophageal echocardiography was performed (Figure 1B). The three-dimensional views allowed a realistic evaluation of the atrial septal occluder: one of the four anchor arms was asymmetric and displaced into the right atrium. Near to this arm, in the anterosuperior region of the septum secundum at ≈1 cm from the aortic rim, a small interatrial defect with a mild left-to-right shunt due to a device leak was clearly seen (Figure 1C; see Supplementary data, Movie S1).

Supplementary data are available at European Journal of Echocardiography online.

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