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

Giovanni Minardi*, Giordano Zampi, Amedeo Pergolini, and Paolo G. Pino

Department of Cardiovascular Science, ‘S. Camillo-Forlanini’ Hospital, Via Sebino 11, 00199 Rome, Italy

* Corresponding author. Tel/fax: +39 06 58704562, Email: giovanni.minardi@libero.it

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 \( \approx 1 \) 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.