An atypical clinical presentation of a broken guidewire left in the venous system

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A 65-year-old male patient with a non-ischaemic cardiomyopathy with poor left ventricular function was referred for right-left heart catheterisation as part of the work-up for left ventricular assist device implantation.

Using a femoral approach, a Swan-Ganz (SG) catheter (Edwards Lifesciences, Irvine, CA, USA) was advanced into the right atrium and, subsequently, to the right ventricle. After several unsuccessful attempts at advancing it into the pulmonary artery, a 0.014" 300 cm BHW coronary guidewire (Abbott Vascular, Santa Clara, CA, USA) was advanced through the catheter, allowing it to be advanced into the pulmonary artery. After pressure recording, the catheter was removed and the procedure finished without complications.

A few hours later, the patient referred to a mild throbbing discomfort localised at the fifth left intercostal space at the level of the midclavicular line. Physical examination revealed a pulsatile point in which a sharp object seemed to be protruding under the skin (Figure 1A, Moving image 1). Fluoroscopic examination showed a long guidewire fragment stabbing the apex of the right ventricle (Figure 1B, Moving image 2). The wire was removed by using an Amplatz GooseNeck[®] snare (ev3 Inc., Plymouth, MN, USA) via the right femoral vein (Figure 1C).

This extraordinary clinical presentation led to a prompt identification of the complication and its successful resolution.

Conflict of interest statement

The authors have no conflicts of interest to declare.

Supplementary data

Moving image 1. Pulsatile point.

Moving image 2. Guidewire fragment embedded in the right ventricle.



Figure 1. Broken guidewire identification and retrieval. *A*) Pulsatile point. *B*) Dotted line: cardiac silhouette. White arrows: guidewire fragment fixed to the apex of the right ventricle. Asterisk: MitraClip[®] device (Abbott Vascular). *C*) Retrieval of the guidewire fragment (white arrow). Dotted arrow: Amplatz GooseNeck[®] snare. Black arrows: snare catheter.

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