A 78-year-old woman experienced cardiac tamponade (Figure 1). At first, a drainage tube was inserted into the pericardial cavity through the fifth intercostal space guided by transthoracic echocardiography; however, the aspirate was bloody. We suspected that the tip of the drainage tube had been inserted into the intracardiac space. The microcavitation contrast was generated immediately by agitation of a mixture of 0.5 mL of air, 0.5 mL of the aspirated fluid, and 8 mL of normal saline between two 10-mL syringes connected by a 3-way stopcock. The contrast medium (5 mL) was injected slowly into the pericardium through the drainage tube, care being taken to avoid air bubbles (Figure 2). The microcavitation contrast around the heart on transthoracic echocardiography (as illustrated in the online-only Data Supplement Movie) confirmed that the tip of the drainage tube was in the pericardial cavity.

Disclosures

None.

Figure 1. Two-dimensional echocardiography showing increased effusion around the heart. Arrows indicate areas containing the effusion. LV indicates left ventricle; RA, right atrium; and LA, left atrium.

Figure 2. Microcavitation contrast around the heart detected easily by transthoracic echocardiography; entire image became blurred. Arrows indicate effusion enhanced with microcavitation contrast.
Microcavitation Contrast Method for the Drainage of Bloody Pericardial Effusion
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