Temporary pacemaker with left bundle branch block image in ECG

A 78-year-old man who had no history of dizziness and syncope was admitted to the emergency department of a public hospital with syncope. He had no angina. He had undergone multivessel coronary artery bypass surgery 6 years ago. His blood pressure was 70/40 mm Hg, and his pulse was 42 beats/minute in the emergency department. Electrocardiography (ECG) revealed complete atrioventricular block and right bundle branch block (Fig. 1A). Therefore, transvenous temporary pacing was implanted, guided by ECG, and then, the patient was referred to our hospital for follow-up. After pacemaker implantation, the pacemaker rhythm and left bundle branch block (LBBB) view was seen in the ECG (Fig. 1B). The pacemaker lead position appeared normal on the anterior-posterior chest radiography (Fig. 1C).

The patient's blood pressure was normal 1 day later. He was pacemaker-dependent. The apical five-chamber view showed a temporary pacing lead by transthoracic echocardiography (TTE) (Fig. 2A, Video 1). The localization of the pacemaker lead was shown by fluoroscopy imaging in the right anterior oblique projection (RAO) and left anterior oblique (LAO) projection, respectively (Fig. 2B, C).

Where is the pacemaker lead?

A. Right ventricle via right jugular vein
B. Right ventricle via femoral vein
C. Left ventricle via right jugular vein
D. Left ventricle via right common carotid artery

Video 1. Transthoracic echocardiography demonstrates the localization of the temporary pacemaker lead by apical five-chamber view

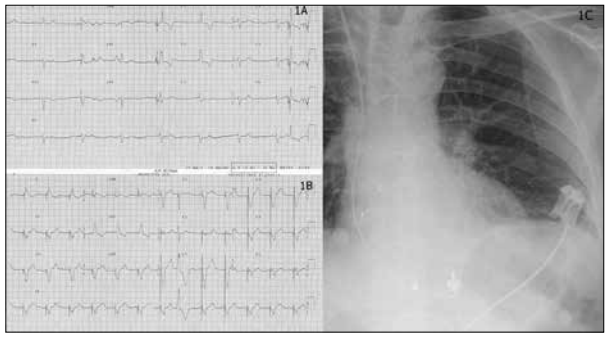

Figure 1. A-C. The initial electrocardiography (ECG) revealed complete atrioventricular block and right bundle branch block (RBBB), and the heart rate was 42 beats/minute (A). After temporary pacemaker implantation, the ECG showed the pacemaker rhythm and left bundle branch block (LBBB) (B). The anterior-posterior chest radiography showed the tip of the pacemaker (arrow) (C)

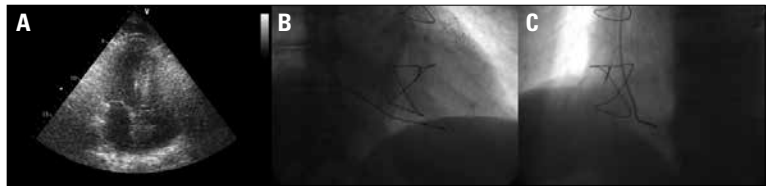

Figure 2. A-C. Apical five-chamber view showing temporary pacing lead by TTE (A). Fluoroscopy image shows that the pacemaker lead was seen in the right anterior oblique projection (RAO) (B). Fluoroscopy image shows that the pacemaker lead was seen in the left anterior oblique (LAO) projection at 28° (C)

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