Temporary pacemaker with left bundle branch block image in ECG

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Right answer: D. Left ventricle via right common carotid artery

When we made a detailed examination with TTE, we saw that the transvenous temporary pacing was not in the jugular vein. The suprasternal view showed the lead of the pacemaker in the arcus aorta (Fig. 3A). The localization of the pacemaker lead was seen in the right ventricle by fluoroscopy in the RAO. But, we were sure the localization of lead in the left ventricle when we was seen by fluoroscopy image in LAO projection at 28°. The lead of pace was inserted via the right common carotid artery. The tip of the lead was placed in the left ventricular septum in our patient.

The patient did not consent to a coronary angiography. We had inserted a permanent VDD pacemaker via the left subclavian vein. We recorded a fluoroscopy image after inserting the permanent pacemaker in the LAO projection at 26° (Fig. 3B). The day after, we removed the temporary pacemaker with cardiovascular backup in the anticoagulant treatment. There was no neurological deficit after removal of the pacemaker. The follow-up was uneventful until 5 days later.

Because of LBBB and the image in the anterior-posterior chest radiography, we may think that the pacemaker lead was in the right ventricle. However, the fluoroscopy and echocardiography showed that the tip of the pacemaker lead was in the left ventricle.

A pacemaker lead may be implanted in the left ventricle via right jugular vein presence of atrial septal defect, ventricular septal defect, and patent foramen ovale. However, suprasternal images showed the lead of pacemaker in the arcus aorta.

Generally, a pacemaker is inserted by ECG guidance in the emergency room. But, some dangerous complications may occur without fluoroscopic guidance. Malposition of pacemaker

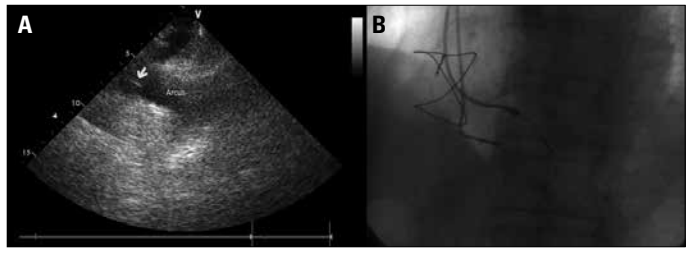

Figure 3. A, B. Suprasternal view showing the lead of the pacemaker (arrow) in the arcus aorta (A). Fluoroscopy image after insertion of the permanent pacemaker in the LAO projection at 26° (B)

leads has been described in several different locations, including the left ventricle, pulmonary outflow tract, the atria, the coronary sinus, and other cardiac veins (1). Misimplantation of a temporary pacemaker lead in the aortic sinus via the femoral artery and left subclavian vein was reported previously (2, 3).

In the presence of LBBB in ECG was the main tricky situation in our patient. Likewise, the tip of the pacemaker lead was seen in the right ventricle by anterior-posterior chest radiography. Transthoracic echocardiography and fluoroscopy images helped us to determine the localization of the pacemaker lead.

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