

# A Rare Late Complication of Pacemaker Placement in a Patient Coming with Chest Pain: Ventricular Perforation

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## Letter to The Editor

Pacemakers are life-saving and generally safe devices implanted in patients with arrhythmia or heart failure. After pacemaker implantation, some early and late complications may occur. Early complications include pneumothorax, cardiac tamponade, cardiac perforation; late complications include infections, venous thrombosis, sensing and pacing problems, battery erosion, and more rarely, cardiac wall perforations. In this article, we report a case of right ventricular perforation due to pacemaker in the late period because of its rarity. A 69-year-old male patient was brought to our emergency department with complaints of stabbing chest pain and dyspnea. He had a history of pacemaker implantation about 6 months ago. Consciousness was clear, GCS:15, general condition was moderate. Arrival vital signs: Body temperature: 36.5°C, respiratory rate: 25 breaths/min, arterial blood pressure: 140/80 mm/Hg, pulse: 86 beats/min, SpO<sub>2</sub>: 96%, fingertip blood glucose: 161 mg/dL. Rales were heard in the base of the bilateral lungs. Other systemic examination findings were normal. Blood tests: WBC: 11.07 (4-

10<sup>3</sup>/μL), PLT: 137 (150-399 10<sup>3</sup>/μL), HGB: 11.9 (13.6-16.9 g/dL) Potassium: 4.3 mmol/L (3.5-5.1 mmol/L), BUN: 69 mg/dL (6-20 mg/dL), CRE: 2.01 mg/dL (0.7-1.3 mg/dL), INR: 4.03 (0.8-1.2), PT-SN: 46.5 sec (11-16 sec). Initial Hs-Troponin: 4.80 ng/mL (0-0.045 ng/mL), control Hs-Troponin: 4.99 ng/mL (0-0.045 ng/mL) (taken at the 1<sup>st</sup> hour) was increased. In the chest radiograph of the patient, it was observed that the pacemaker electrode in the right ventricle extended out of the ventricle. The diagnosis of right ventricular perforation was confirmed by echocardiography. Due to the lack of intensive care unit, the patient was referred for Myocardial infarction without S-T elevation and pacemaker revision. Pacemakers are life-saving devices and life-threatening complications may be encountered rarely. Late ventricular perforation due to pacemaker lead may rarely occur, but this should be kept in mind and the pacemaker lead level should be evaluated on chest radiographs in these patient populations.

**Keywords:** Pacemaker; Ventricular perforation; Complication; Chest pain; Dyspnea