

Transient elevation of the ST segment during implantation of a ventricular pacemaker electrode for deep septal stimulation: A case report

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Introduction: Transient elevation of the ST segment is a described but uncommon complication during puncture of the inter-atrial septum, being attributed to coronary spasm due to an autonomic reflex or air embolism. We observed a similar change during electrode penetration into the deep region of the muscular intraventricular septum for left bundle branch stimulation. **Case Report:** A female patient, 73 years old, born and living in São Paulo, with a history of dyslipidemia using rosuvastatin 10 mg/day, underwent an Electrophysiological Study (EEI) due to syncope, being diagnosed with intraventricular atrioventricular block - His with split - His, with a dual-chamber pacemaker being indicated. He underwent implantation of a dual-chamber pacemaker, Medtronic (ADVISA), with ventricular stimulation in the muscular portion of the interventricular septum to stimulate the left bundle branch, using a Medtronic selectsecure electrode and C-315 delivery sheath. During the penetration of the electrode into the muscular intraventricular septum, significant elevation of the ST segment in the inferior wall leads was observed on the surface electrocardiogram. To clarify these significant electrocardiographic changes that suggested acute ischemia, coronary cineangiography was performed urgently by approaching the right radial artery. During the preparation for the procedure, a progressive regression of the sub-epicardial lesion current was observed until complete normalization, occurring in an interval of less than 10 minutes. Coronary angiography was normal, and the electrode fixation point was not close to any coronary branch, suggesting a transient reflex spasm of the right coronary artery. **Conclusion:** The electrocardiographic findings observed can be explained by the septal perforation for implantation of a ventricular electrode for deep septal stimulation as it triggers coronary spasm possibly related to an autonomic reflex.