Implantation Of A Ddd-Pacemaker Leads Via Plsvc By Using A Coronary Sinus Guiding Catheter And A Deflectable Stylet


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Abstract
A 63-year-old woman with complete atrioventricular block underwent DDD pacemaker implantation in 2011. Persistent left superior vena cava (PLSVC) without connection between the left subclavian vein and the innominate vein was revealed during the initial operation, hence and the device was subcutaneously implanted in the right precordial wall using right cephalic vein. After implantation, thinning of skin above the device gradually developed without any pain or swelling, but finally, device erosion occurred with leaking of some effusion. She underwent surgery of debridement in the pocket and laser lead extraction without any complications. After adequate administration of antibiotics and negative pressure wound therapy using the vacuum-assisted closure, she had a new DDD pacemaker implantation from the left side. Firstly, a guide wire was proceeded to a right atrium (RA) via PLSVC from a left axillary vein, and a coronary sinus (CS) guiding catheter which could be peeled away (CPS Direct™, St. Jude Medical, St. Paul, MN) proceeded to a right ventricular (RV) outflow tract with over the wire technique. Secondary, a screw-in RV lead (model 2088TC-58, St. Jude Medical, St. Paul, MN) was proceeded with a deflectable stylet (Locator™ Plus, St. Jude Medical, St. Paul, MN), and placed in the mid septum of the RV base. Finally, a screw-in RA lead (model 2088TC-58, St. Jude Medical, St. Paul, MN) was advanced with a normal stylet preshaped alpha loop, and placed in the RA septum near fossa ovalis. A CS guiding catheter and a deflectable stylet may be useful for pacemaker lead implantation via PLSVC.