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CRT-D Implantation Through a Persistent Left Superior Vena Cava

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A persistent left superior vena cava (PLSVC) was present in a 74 year-old man with dilated cardiomyopathy undergoing implantation of a cardiac resynchronization therapy device with defibrillator (CRT-D). A dual-coil active-fixation defibrillator lead was positioned in the right ventricular apex, followed by a SonR active fixation lead in the right atrial free wall. The coronary sinus lead was advanced into a postero-lateral vein (**Figure 1, Panel A**). All three leads were implanted through the PLSVC. The acute thresholds were normal. A chest X-ray was performed to confirm the lead positions (**Figure 1, Panel B**).

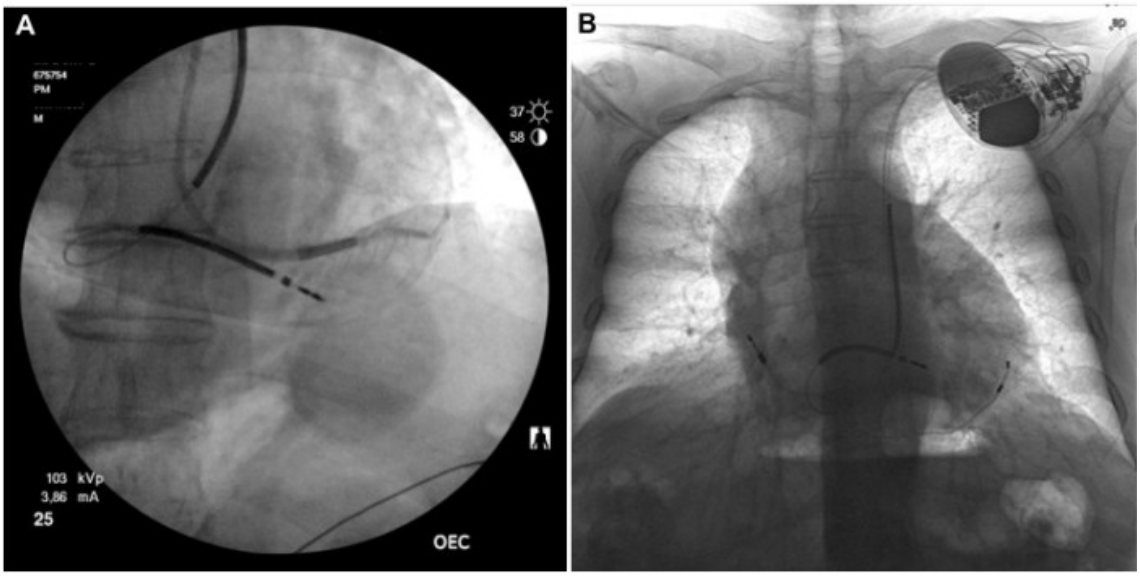

Figure 1: CRT-D Implantation Through a Persistent Left Superior Vena Cava

Persistent left superior vena cava (PLSVC) is the most common variation in the anomalous venous return to the heart, accounting for 0.2-4.3% of all congenital cardiac anomalies [1]. This anomaly is usually asymptomatic and unrecognized until left cephalic or subclavian approach is used for diagnostic [2,3]. It can pose particular difficulty when introducing electrodes in the heart chambers.

References

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