

conclusion a careful analysis of clinical presentation together with angiography combined with multislice coronary CT is useful to optimize therapy and determine the patient prognosis.

Keywords: coronary artery anomaly, single coronary artery anomaly, cardiac CT

■ OP-127 [AJC » Cardiac Resynchronization Therapy]

Cardiac Resynchronization Therapy In A Patient With Persistent Left Superior Vena Cava Draining Into Coronary Sinus.

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Case Report: A 42-year-old man with non-ischemic dilated cardiomyopathy, left ventricular ejection fraction = 28%, LBBB (QRS width

170 ms), NYHA class III symptoms on optimal medical management was referred to our service for CRT device insertion. During left subclavian puncture, guide wire went through a left sided venous structure. We suspected Persistent Left Superior Vena Cava (PLSVC) and procedure was delayed because of necessity for suitable equipment. A contrast enhanced CT was done for the exact anatomical structure. It revealed PLSVC without a bridging innominate vein and posterolateral (PL) coronary vein draining into a huge coronary sinus (CS).

We performed arteriography to identify its exact anatomy and it confirmed PL vein. CS venography was done with a pigtail, sufficient to identify the confluence of the CS and branches. PL vein was selectively intubated with an inner sub-selection catheter. Firstly, an active fixation right ventricular (RV) lead was inserted through the PLSVC and the stylet was preshaped like a high angled J. We also used a 0.038 guidewire passing through tricuspid valve to RV for neighbouring and guiding lead to facilitate passage. An active-fixation atrial lead was positioned on the

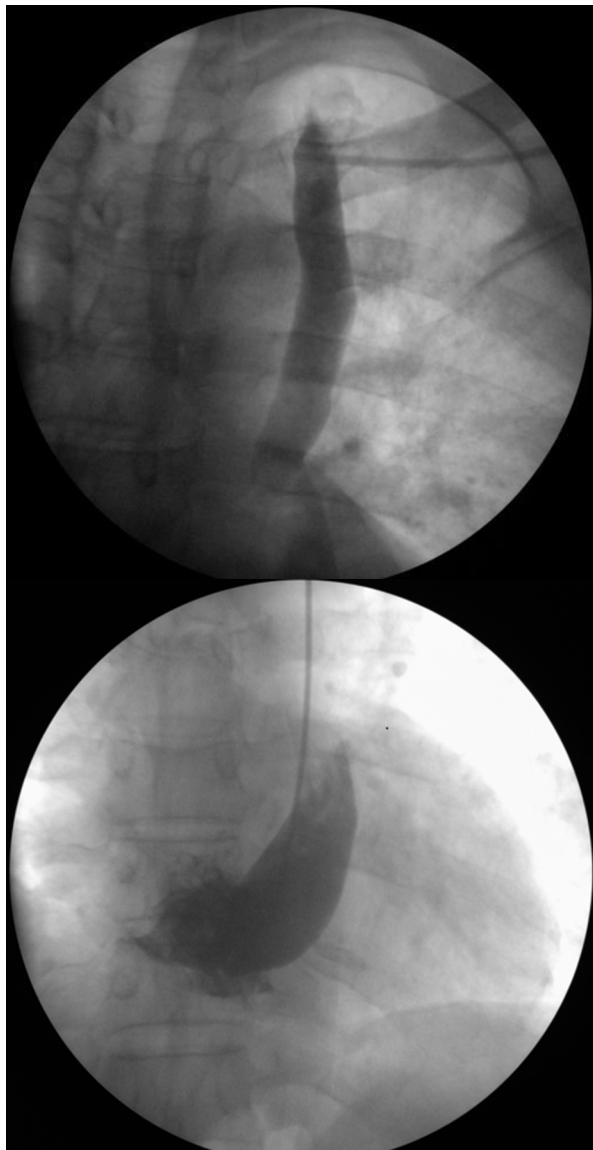


Figure 1. (A) Venography showing the course of the right superior vena cava (SVC) (B) Venography of the huge coronary sinus (CS) with pigtail catheter. Ostium of the posterolateral vein was visualized successfully.



Figure 2. (A) Right ventricular actively fixed lead passing through tricuspid valve. Also venography of posterolateral branch of coronary sinus with selective intubation of inner catheter (B) A coronary guide wire coursing distally for delivery of left ventricular lead

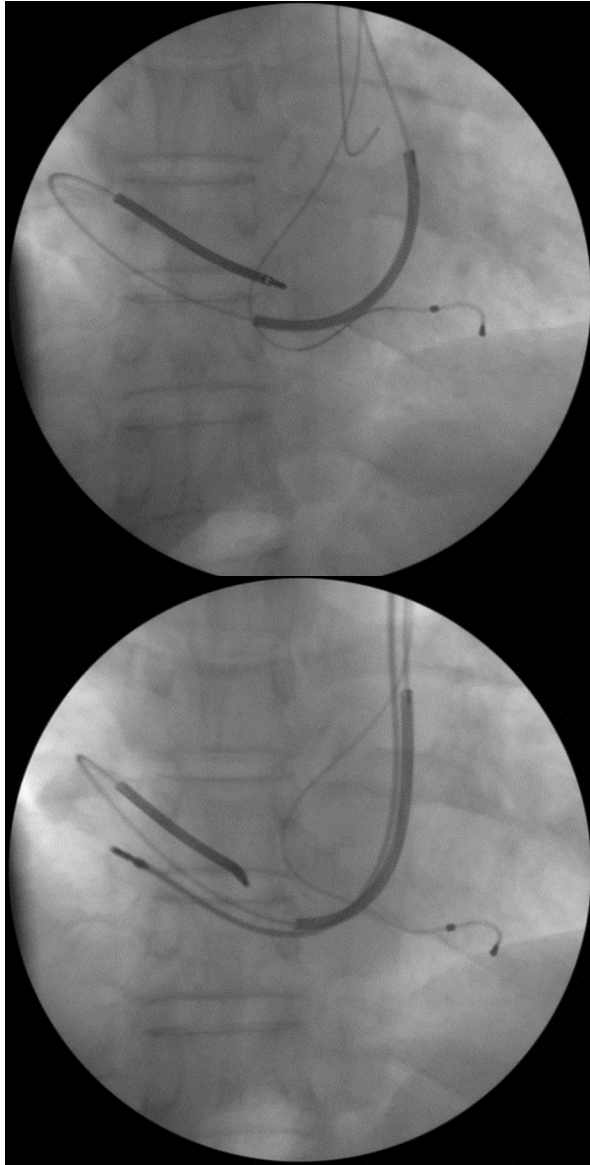


Figure 3. (A) LV lead was introduced successfully into the posterolateral branch over the guide wire. (B) Final positions of the right atrial, right ventricular and coronary sinus leads.

RA free wall. Lastly, an over-the-wire lead was successfully deployed through the intubated inner sub-selection catheter to a stable position with a capture threshold of 0.7V and an R wave of 13.2mV. A CRT-D device was connected and implantation was successfully completed.

Discussion: Persistent left SVC is the most common congenital thoracic venous anomaly. The transvenous placement of cardiac device lead via PLSVC can be technically difficult. The major difficulty relates to the right ventricular lead implantation, as the tip of the lead is deflected away from the tricuspid annulus. We used a J-shaped stylet and a neighbouring wire to overcome this problem. Another major problem relates to the placing of the left ventricular pacing lead in the coronary sinus branch. Also failure in visualizing the suitable CS side branch in a huge CS for implantation increases both procedure time and radiation exposure. If possible, using preprocedural cardiac imaging techniques and selecting the most appropriate approach with suitable tools (stylets, leads, cannulation catheters and guidewires) increase the chance of success. For this purpose we used different modalities to

understand exact anatomy. CS venography with a pigtail really decreased procedure time and marked entry point for the PL vein. An inner catheter was inserted easily through this entry point.

Keywords: Left superior vena cava, CRT,

■ OP-128 [AJC » Cardiac pacing for bradyarrhythmias]

A Rare Case of Lead Revision With Subclavian Vein Stenosis: Transport Lead From Opposite Side to Generator.

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Introduction: Cardiac resynchronisation therapy (CRT) has been demonstrated to reduce morbidity and mortality in patients with advanced, drug-refractory heart failure. While implantation leads are implanted to right atrium, right ventricle and left ventricle via coronary sinus. Although CRT Implantation is a very difficult procedure, lead revision is a problem which is performed with much more difficulty. In this case, we report a patient with old CRT pacemaker who need right ventricle (RV) lead revision.

Case: A 60 year-old male with CRT presented to our emergency room with intracardiac defibrillator shocks. In his history, he had three-vessel coronary artery bypass graft (CABG) surgery 15 years ago and CRT was implanted 7 years ago. In pacemaker control, it was detected that shocks were true and right ventricle lead impedance were high. Chest x-ray film showed lead fracture and it was decided to lead replacement. Patient was taken to catheterization laboratory for lead revision. Before procedure contract venography done and showed us totally occluded left subclavian vein. After that we decided to implant RV lead via right subclavian vein and transport lead right to left pectoral area under the skin. After right subclavian vein puncture RV lead sleeve was implanted to right pectoral area with small incision (Figure-1). RV



Figure 1.