Occlusion of the Subclavian Vein after Pacemaker Implantation

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Picture 1. Venography showed a stenosis 5 years later, and an obstruction 6 years later at the site of venipuncture (asterisks). Note the development of venous collateral circulation during one year (arrows).

A 62-year-old man received a dual-chamber pacemaker for complete atrio-ventricular block. The left subclavian vein was punctured, and two transvenous leads were inserted.

Five years later, he was admitted due to swelling of the left upper limb. Venography showed a significant stenosis at the site of venipuncture and a poor collateral circulation. There was a preserved venous return of the left upper limb through the left subclavian vein (Picture 1, left panel). His symptoms spontaneously resolved within 10 days.

Six years later, he was admitted to exchange the pulse generator with no symptom. Repeat venography showed a complete obstruction at the site of venipuncture and a well-developed collateral circulation that affected the venous return of the left upper limb (Picture 1, right panel).

Serial venography demonstrated the development of venous collateral circulation during one year. Clinicians should recognize the possibility of late occlusion of the access vein after pacemaker implantation.

Reference

1. Haghjoo M, Nikoo MH, Fazelifar AF, Alizadeh A, Emkanjoo Z, Sadr-Ameli MA. Predictors of venous obstruction following pacemaker or implantable cardioverter-defibrillator implantation: a contrast venographic study on 100 patients admitted for generator change, lead revision, or device upgrade. *Europace* 9: 328-332, 2007.