OP01-2  Characteristics of Patients with Spontaneous Axillary-Subclavian Venous Occlusion before Antiarrhythmic Device Implantation

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Purpose: It is sometimes difficult to insert leads during antiarrhythmic device implantation because of axillary-subclavian venous occlusion. However, the characteristics of patients with spontaneous axillary-subclavian venous occlusion before antiarrhythmic device implantation remains unclear.

Method: We studied 281 patients (170 men, 71 ± 13 yrs) who underwent axillary-subclavian venography before antiarrhythmic device implantation between 2006-2010. Patients who had renal dysfunction or contrast medium allergy were excluded. We injected contrast at the forearm venous hand site prior to device implantation and confirmed axillary-subclavian venous flow to the superior vena cava. When venous occlusion or vein anomalies were observed, the antiarrhythmic device was implanted on the opposite side.

Results: The devices consisted of 198 pacemakers, 59 implantable cardioverter-defibrillators and 24 cardiac resynchronization devices. Two hundred and sixty patients underwent implant procedures on the left anterior chest and in 21 patients implants were made on the right anterior chest. Only 4 patients (1.4%) suffered venous occlusion and all had antiarrhythmic device implantation on the opposite side. Three of 4 patients with carcinoma (breast cancer, lung cancer and colon cancer) received total parenteral nutrition (TPN) therapy. One patient did not have any significant past history.

Conclusions: Spontaneous axillary-subclavian venous occlusion was observed in 1.4% of patients who needed antiarrhythmic device implantation. Patients receiving TPN therapy may be at greater risk of venous occlusion.

Keywords: venous occlusion, antiarrhythmic device implantation