Superior vena cava syndrome after radiofrequency sinus node modification treated with thrombolysis and stent implantation

A. Marciniak*, M. Gonsalves, and M. M. Gallagher

Departments of Cardiology and Radiology, St. George’s Hospital, London SW17 0QT, UK

* Corresponding author. Tel: +44 208 725 3079; fax: +44 20 8725 4117. E-mail address: annamarciniak@hotmail.co.uk

A 30-year-old woman was admitted with symptomatic brady¬cardia 2 weeks after undergoing a third ablation procedure for inappropriate sinus tachycardia (IST) in another centre. A permanent pacemaker was implanted. She re-presented 3 days later with swelling of both arms, neck and head consistent with superior vena cava (SVC) obstruction syndrome.

Venography showed bilateral brachiocephalic vein throm¬bosis extending to the SVC. There was no symptomatic improvement with therapeutic anticoagulation and repeat ven¬ography demonstrated increased thrombus load. Systemic thrombolysis was performed and subsequent venography conf¬irmed the resolution of the thrombus but persistent SVC ob¬struction (Figure A).

A combined procedure was performed to stent the SVC and to revise the pacing system. The atrial lead was removed and the ventricular lead was withdrawn into the subclavian vein providing access to the left subclavian vein and a channel through the occlusion. Via a right femoral approach the SVC obstruction was stented with self-expanding stents (Figure B). A new atrial lead was inserted and the existing RV lead was advanced through the SVC stent and positioned in the right atrium and RV septum, respectively. This procedure resulted in a complete resolution of the symptoms within 12 h. Warfarin was restarted and the patient was discharged.

The full-length version of this report can be viewed at: http://www.escardio.org/communities/EHRA/publications/ep-case-reports/Documents/Superior-vena-cava-syndrome.pdf.