I. G. Diab and M. J. Earley

• VE may be more common in older patients than previously thought.

Conflict of interest

None

References

The list of 30 references supporting this article has meant that only the most important are listed here and are represented by bold type throughout the text. The full list of references is available on the journal website (http://www.ageing.oxfordjournals.org/) as Appendix 3.


Received 14 August 2006; accepted in revised form 25 January 2007

Ablation of supraventricular tachycardia in a 96 year old

I-HAB G. DIAB1, MARK J. EARLEY2

1Fellow in Cardiac Electrophysiology and Pacing, Manchester Heart Centre, UK
2Consultant Cardiologist/Electrophysiologist, Manchester Heart Centre, UK

Address correspondence to: Mark J. Earley. Email: m.j.earley@qmul.ac.uk

Abstract

Atrioventricular nodal re-entrant tachycardia (AVNRT) is a common arrhythmia that is frequently encountered in clinical practice. Though more common in the younger population, it affects individuals of all ages. The elderly in particular are usually more symptomatic and more frequently require emergency treatment including urgent hospital admissions. We report on a 96-year-old lady who presented with troublesome supraventricular tachycardia that was difficult to control with drug treatment. Electrophysiologic testing revealed AVNRT that was ablated successfully using the standard technique with no complications. She continued to do well at follow-up 1 month after the ablation. This case highlights the need to routinely offer this highly effective technique as the first-line treatment to the elderly along the same indications as those commonly observed among younger patients.

Keywords: AVNRT, ablation, elderly

Age and Ageing 2007; 36: 346–348 © The Author 2007. Published by Oxford University Press on behalf of the British Geriatrics Society. All rights reserved. For Permissions, please email: journals.permissions@oxfordjournals.org

Published electronically 14 March 2007

346
A 96-year-old lady was referred to the cardiac arrhythmia clinic with recurrent episodes of palpitations at rest. These had a sudden onset and offset and were, on a number of occasions, associated with lightheadedness and collapse. The patient was admitted to hospital with this arrhythmia 20 times during the past year. Trials of beta blockers, calcium channel blockers and amiodarone all failed to control her arrhythmia.

This lady was otherwise fit, healthy and active. Her past medical history was significant only for repair of an abdominal aortic aneurysm a few years previously.

A 12-lead ECG during the arrhythmia (Figure 1) revealed a narrow complex tachycardia suggestive of an atrioventricular nodal re-entrant tachycardia (AVNRT) or an atrioventricular re-entrant tachycardia. Her resting 12-lead ECG was normal.

**Management**

The available therapeutic options for this lady were either a further trial of treatment with other antiarrhythmic drugs or an electrophysiological study with a view to ablation of this arrhythmia. These options were discussed with her and she opted to proceed with the EP study in view of the severe symptoms that were difficult to control with drug treatment.

A standard diagnostic electrophysiological study was performed. The arrhythmia was easily induced and identified as AVNRT. We therefore proceeded with slow pathway ablation. Multiple RF applications were made in the region of the slow pathway in the usual manner. Infrequent junctional ectopics were seen during ablation and the arrhythmia could not be induced after ablation.

A number of difficulties were encountered during the procedure. There was difficult puncture of the right femoral vein, which seemed to lie close to and overlapped by the femoral artery. The femoral artery was inadvertently punctured twice and finally the vein was punctured in a high position just medial to the artery. Also tortuosity of the pelvic veins made advancement of the catheters difficult and this was overcome by use of long femoral sheaths in the femoral veins. Otherwise the procedure was straightforward and uncomplicated.

The lady was seen at follow-up and was found to be arrhythmia-free 1 month after the ablation.

**Discussion**

AVNRT is an arrhythmia that is amenable to cure by catheter radiofrequency ablation [1, 2]. It occurs mostly in young age but no age is exempt from the arrhythmia and it is occasionally seen in patients at an old age. Patients with AVNRT at an old age are reported to have longer tachycardia cycle lengths (i.e. a slower tachycardia) when compared to younger patients but more often have associated organic heart disease, are more likely to present with syncope or presyncope during tachycardia and more often require hospitalisation and emergency treatment [3, 4].

The treatment of choice for AVNRT is catheter ablation. There have been a number of reports in the literature on the results of slow pathway modification for AVNRT in the elderly population and these all showed comparable success rates, recurrence rates and similar rates of complications (atrioventricular block, pericardial effusion and vascular thrombosis) to those in younger patients [4–6].

Unfortunately, elderly patients are often denied a curative procedure on account of their age, and physicians are satisfied treating them with drugs that are often ineffective in controlling potentially life-threatening episodes or frequently cause undesired side-effects to which the elderly are more susceptible. These patients, therefore, continue to suffer...
unnecessarily and may consume resources due to urgent hospital admissions. The alternative is a relatively safe and highly effective ablation procedure for slow pathway ablation, which is the treatment of choice for younger patients with the arrhythmia, and should also be of choice for patients of any age.

Conflict of interest

None

References


Received 12 December 2006; accepted in revised form 2 February 2007