LETTER FROM THE EDITOR IN CHIEF

Renal Sympathetic Denervation Post AF Ablation

Dear Readers,

For this month’s issue I would like to address a new procedure that may become a routine procedure for practicing electrophysiologists, namely renal denervation. Indeed, this critically important topic was covered at our most recent AF Innovations meeting in New York City, November 30 to December 1, 2012. To view the recorded live renal denervation case that was performed by Dr. Vivek Reddy and was shown with the conference or the accompanying didactic presentation from Dr. Marc Miller on this subject please follow the link below to find this on our Journal’s website: http://www.innovationsincrm.com/renal-sympathetic-denervation-post-af-ablation.

Undoubtedly, you have been following the impressive articles that have been recently published on this exciting new procedure. By simply using one of our usual electrophysiology ablation catheters in the renal arteries we can quickly denervate the nerves in the wall of the artery. This very simple and straightforward ablation results in a profound blood pressure reduction of approximately 20–30 mmHg. Moreover, this blood pressure reduction appears to persist even up to 2 years of follow-up.1

In fact, as this procedure is so simple and effective there are now approximately 40 different companies all working on a renal denervation catheter.2 Interestingly, none of these new devices have been shown to be any better than one of our standard electrophysiology ablation catheters.

As renal denervation is likely to soon become a mainstream procedure for treating hypertension, various medical specialties are already competing to see who will be delivering this exciting new therapy. We are already seeing this jockeying for position even at our institution. Sadly, I hear reports of interventional cardiologists, vascular surgeons, nephrologists, etc., all struggling with the simple biophysics of endovascular radiofrequency ablation. Rather than just partner an electrophysiologist who is very experienced in catheter ablation, many of our colleagues insist on going it alone, and thus have to “reinvent the wheel.” Certainly, we are the experts in endovascular catheter ablation and have already gone through more than 20 years of catheter ablation.

While as electrophysiologists we may not want to get involved in setting up hypertension clinics, we certainly can combine renal denervation with catheter ablation of atrial fibrillation. It has been well known for quite some time that one of the main predictors of AF recurrence following AF ablation is poorly controlled hypertension. If we cannot control hypertension it is just a matter of time before patients will develop a new non-pulmonary vein AF foci. As we already have arterial access for AF ablations, performing renal denervation would only add an additional 10–15 min to the procedure time but yet could dramatically increase our long-term success rates.

In September of last year, Dr. Pokushalov and colleagues published a fascinating study combining renal denervation with AF ablation. While this was a small study consisting of only 27 patients it definitely highlights the potential of this new therapy. In this study, patients with symptomatic paroxysmal or persistent AF refractory to antiarrhythmic drugs and drug-resistant hypertension which was defined as systolic blood pressure >160 mmHg despite triple antihypertensive drug therapy were enrolled in this study. The one-year success rate was 69% in the AF ablation and renal denervation group versus just 29% in the AF ablation only group.3 Clearly, renal denervation dramatically improved the success rate of AF ablation in this pilot study.

I applaud the efforts of Vivek Reddy and others involved in the multicenter H-FIB Trial to answer this question of whether renal artery ablation should be part of our standard lesion set for AF ablation in hypertensive patients. While it will be 4 more years before we know the results of the 300 patients they will enroll, we can certainly hope that renal denervation shows efficacy. I for one, would much rather quickly ablate in the renal arteries rather than struggle for bidirectional block of linear lesions in the left or right atrium for persistent AF.
In the meantime, I strongly encourage all of our readers to view Dr. Reddy’s previously performed renal
denervation live case and to view the accompanying didactic lecture.

As always, I welcome any suggestions or comments you may have on this Journal or our Journal sponsored
conferences.

Warm regards,

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concomitant renal artery denervation in patients with refractory symptomatic atrial fibrillation and resistant hypertension.