

Symptoms-guided Assessment of Atrial Fibrillation Recurrence After Radiofrequency Pulmonary Vein Ablation: is it a Reliable Strategy?

Maurício Scanavacca e Eduardo Sosa

Instituto do Coração do Hospital das Clínicas – FMUSP - São Paulo, SP - Brazil

Dear Editor,

With respect to the article “Catheter Ablation of Atrial Fibrillation – Techniques and Results”, published in the October 2005 edition (Arq Bras Cardiol. 2005;85:295-301), the issues raised by our colleagues Paulo Roberto Benchimol Barbosa and José Barbosa Filho on the risk of asymptomatic recurrence of atrial fibrillation (AF) after catheter ablation are of great clinical relevance¹.

Symptom-guided assessment, associated with 24-hour Holter monitoring, has been the strategy used by authors of the major published papers reporting the results of catheter ablation of AF^{2,3}. In studies using long-term rhythm monitoring through seven-day Holter or daily transtelephonic ECG transmissions, the number of recurrences in asymptomatic patients was found to be significantly higher^{4,5}. The use of a more sensitive method to establish the actual success rate of AF ablation procedures is not only desirable, but also the cornerstone of the decision regarding anticoagulation therapy discontinuation, taking into account the risk of embolic events. Thus, daily transtelephonic monitoring during one year has already been used by the latest scientific studies for a more reliable evaluation of AF ablation

effectiveness^{6,7}. However, this monitoring strategy with daily sampling of heart rhythm is not practical for long-term use. In addition, it has some limitations regarding recurrence evaluation, since it provides intermittent recording, and asymptomatic and self-limited episodes may be missed.

In our opinion, the choice of a method to evaluate success depends on the patient’s clinical characteristics. In young, symptomatic subjects with paroxysmal atrial fibrillation but no risk factors for embolic phenomena, in which the procedure is intended to improve quality of life, symptom-guided assessment associated with 24-hour Holter seems to be quite acceptable for clinical follow-up. Yet, this conduct is not appropriate for patients at high risk of embolism. Theoretically, in view of the limitations of the monitoring systems described above, these patients should be kept indefinitely anticoagulated. An alternative would be continuous, long-term ECG monitoring over the years showing absence of atrial fibrillation. Currently, this monitoring system is available only in pacemakers with AF detection algorithm and implantable loop recorders, even though no prospective studies have been made showing either the efficacy or cost-effectiveness of these technologies^{8,9}.

REFERENCES

1. Barbosa PRB, Barbosa Filho J. Avaliação da Recidiva da Fibrilação Atrial após Ablação da Veia Pulmonar por Radiofrequência Baseada em Sintomas: esta é uma Estratégia Confiável? Arq Bras Cardiol 2006; 86: 396.
2. Pappone C, Oreto G, Rosanio S et al. Atrial electroanatomic remodeling after circumferential radiofrequency pulmonary vein ablation. Circulation 2001; 104: 2539.
3. Hocini M, Sanders P, Jais P et al. Techniques for curative treatment of atrial fibrillation. J Cardiovasc Electrophysiol 2004; 15: 1467-71.
4. Piorkowski C, Kottkamp H, Tanner H et al. Value of different follow-up strategies to assess the efficacy of circumferential pulmonary vein ablation for the curative treatment of atrial fibrillation. J Cardiovasc Electrophysiol 2005; 16: 1286-92.
5. Hindricks G, Piorkowski C, Tanner H et al. Perception of atrial fibrillation before and after radiofrequency catheter ablation: relevance of asymptomatic arrhythmia recurrence. Circulation 2005; 112: 307-13.
6. Verma A, Marrouche NF, Natale A. Pulmonary vein antrum isolation: intracardiac echocardiography-guided technique. J Cardiovasc Electrophysiol 2004; 15: 1335-40.
7. Oral H, Pappone C, Chugh A et al. Circumferential pulmonary-vein ablation for chronic atrial fibrillation. N Engl J Med 2006; 354: 934-41.
8. Passman RS, Weinberg KM, Freher M et al. Accuracy of mode switch algorithms for detection of atrial tachyarrhythmias. J Cardiovasc Electrophysiol 2004; 15: 773-7.
9. Montenero AS, Quayyum A, Franciosa P et al. Implantable loop recorders: a novel method to judge patient perception of atrial fibrillation. Preliminary results from a pilot study. J Interv Card Electrophysiol 2004; 10: 211-20.

Mailing Address: Maurício Scanavacca • InCor - Av. Dr. Enéas de Carvalho Aguiar, 44 - 05403-000 – São Paulo, SP - Brazil
E-mail: mauricio.scanavacca@incor.usp.br

Received on 03/24/06 • Accepted on 03/24/06