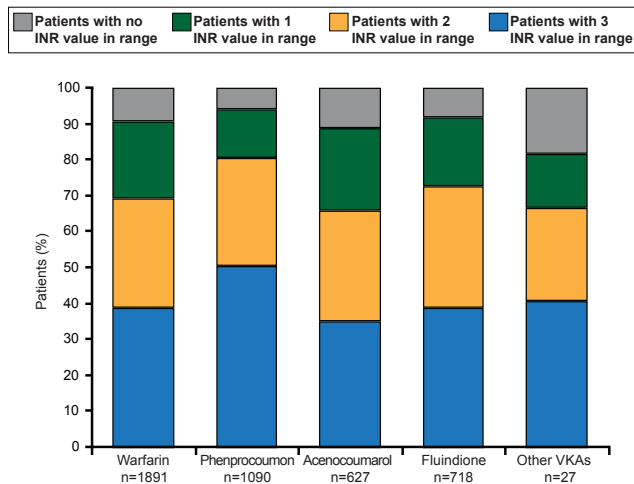


Anticoagulation management by VKAs was also evaluated, based on 3 international normalized ratio (INR) values collected at baseline visit. Approximately two thirds of patients showed adequate anticoagulant control, having 2 out of 3 INRs within the therapeutic range, and <50% had all 3 INR values within the therapeutic range (Figure 3).

Figure 3. Quality of Anticoagulation Control Using VKAs



INR=international normalized ratio; VKA=vitamin K antagonists.
Reproduced with permission from P Kirchhof, MD.

It was also found that adequate heart rate control (within 60 to 100 bpm) was achieved in most patients with AF. However, more than half of them had a European Heart Rhythm Association score of III to IV, indicating a reduced quality of life due to severe or disabling AF symptoms. And although amiodarone is the form of rhythm control therapy being used most extensively in these patients, AF ablation is also being increasingly used. However, it was also shown that more than half of the most symptomatic patients do not receive rhythm control therapy

The researchers concluded that the baseline data demonstrates a change in clinical practice since the publication of the updated ESC guidelines in 2010 for management of patients with AF. However, although many patients are receiving OAC therapy in accordance with recommended guidelines, many patients remain symptomatic yet still do not receive rate control therapy. Although these findings will need to be confirmed at the 12-month follow-up visit, improved strategies may be necessary to enhance outcomes in patients with AF.

Altogether 78.6% of patients were adequately rate controlled, using a mean heart rate of 60 to 100 bpm as the definition. Rhythm control therapy was given to 66.7% of patients, with rhythm control consisting of electrical

cardioversion in 18.1% of patients; pharmacological conversion in 19.5%; amiodarone in 24.1%; flecainide in 10.5%; sotalol in 5.5%; dronedarone in 4%; other antiarrhythmic drugs in 3.1%; and catheter ablation in 5%. However, over 80% of patients still suffered from AF symptoms despite good rate control.

“We were surprised and puzzled by the high number of patients who suffer from AF despite good rate control,” said Prof. Kirchhof. “This indicates that we have more work to do to develop tools to better prevent AF and possibly to better maintain sinus rhythm in the future.”

The ongoing Early Treatment of Atrial Fibrillation for Stroke Prevention Trial [EAST; www.easttrial.org] is currently testing whether early use of rhythm control therapy can prevent adverse cardiovascular outcomes in patients with AF compared with usual care. EAST will help to define whether early rhythm control therapy can improve the management of patients with AF.

Pacing Is Beneficial in Neurally Mediated Syncope With Negative Tilt Test

Written by Emma Hitt, PhD

Cardiac pacing is beneficial in patients with neurally mediated syncope (NMS) that have a negative tilt test, but not in those patients with a positive tilt test. Michele Brignole, MD, Ospedalidel Tigullio, Tigullio Lavagna, Italy, presented data from the International Study on Syncope of Uncertain Etiology 3 registry [ISSUE-3; NCT00359203].

NMS is characterized by hypotension, bradycardia, and syncope due to dysfunction of the autonomic regulation of postural tone [Zaqqqa M, Massumi A. *Tex Heart Inst J* 2000]. Prior to the ISSUE-3 trial, the ability of pacemaker therapy to prevent syncope recurrence was controversial in patients with NMS [Brignole M et al. *Circulation* 2012]. The international, randomized, double-blind ISSUE-3 trial showed that cardiac pacing was able to reduce syncopal recurrence in 77 severe asystolic NMS patients randomly assigned to pacemaker ON (n=38) or to pacemaker OFF (n=39).

For the larger ISSUE-3 registry conducted in 51 centers, 504 patients with severe, recurrent reflex syncopes aged ≥40 years were initially screened for NMS and received an implantable loop recorder (ILR). Following electrocardiogram (ECG) data during a mean follow-up of 15 months, 162 out of 187 patients were determined to likely have NMS; 99 patients had asystolic NMS and 63 had hypotensive NMS. NMS was excluded in 25 patients; 21 patients had intrinsic cardiac arrhythmias and 4 had nonarrhythmic transient loss of consciousness.

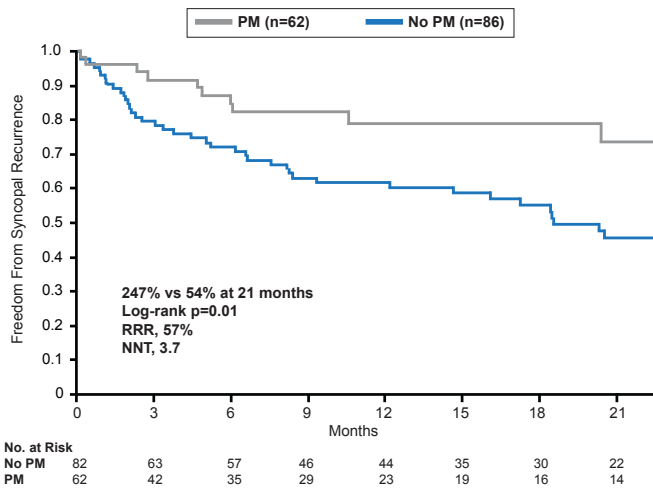


CLINICAL TRIAL HIGHLIGHTS

Atrial tachyarrhythmia was associated with intrinsic cardiac syncope, as 38% of patients with intrinsic cardiac arrhythmias versus 5% of NMS patients had atrial tachyarrhythmias. Other multiple factors related to syncopal events and other factors, such as tilt testing, structural heart disease, hypertension, diabetes, and concomitant medications, were found not to be associated with intrinsic cardiac syncope.

In NMS patients that received pacemaker therapy (n=62), 27% experienced recurrence of syncope, compared with 54% of NMS patients that did not receive a pacemaker at 21 months, resulting in a hazard ratio of 57% (p=0.01; Figure 1). The median total number of syncopal events was predictive of recurrence (p=0.007) and patients with ≥8 syncopal events were more likely to experience a recurrence (p=0.001).

Figure 1. Effect of Pacemaker Therapy in Patients With NMS

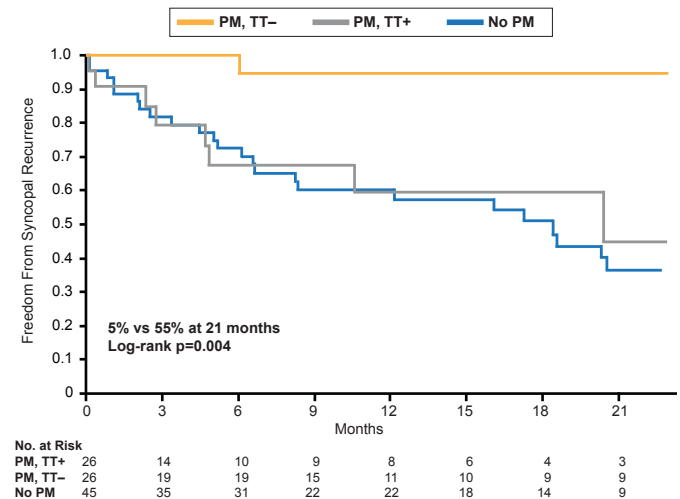


Reproduced with permission from M Brignole, MD.

In NMS patients, a positive tilt test occurred in 89% of patients that developed recurrence compared with 42% (p=0.0004) in patients that did not develop recurrence following pacemaker therapy. In NMS patients with a pacemaker, 5% that had a negative tilt test experienced recurrence compared with 55% of patients that had a positive tilt test (p=0.004; Figure 2).

Prof. Brignole concluded that in his opinion, the data from the ISSUE-3 trial suggest that pacemaker therapy is beneficial in the subset of NMS patients that receive a negative result during the tilt test. However, cardiac pacing does not appear have efficacy in patients that have a positive tilt test.

Figure 2. Tilt Test Results Are Predictive of Syncope Recurrence Following Pacemaker Therapy



Reproduced with permission from M Brignole, MD.

Radiofrequency Ablation Without ICD Effective and Safe for Well-Tolerated SMVT

Written by Toni Rizzo

Patients with structural heart disease (SHD) who experience sustained monomorphic ventricular tachycardia (SMVT) are usually considered to have a poor prognosis. According to the American College of Cardiology (ACC)/American Heart Association (AHA)/Heart Rhythm Society (HRS) 2008 Guidelines for device-based therapy of cardiac rhythm abnormalities, therapy with an implantable cardioverter defibrillator (ICD) is indicated in patients with SMVT and SHD [Epstein AE et al. *Circulation* 2008]. The ACC/AHA/European Society of Cardiology (ESC) 2006 Guidelines recommend ablation for patients with SMVT who are at low risk for sudden cardiac death (SCD) [Zipes DP et al. *Circulation* 2006], a condition which “a priori” does not correspond to patients with structural heart disease.

Philippe Maury, MD, University Hospital Rangueil, Toulouse, France, reported the results of the Radio-Frequency Ablation as a primary management for Sustained Monomorphic Ventricular Tachycardia in Patients With Structural Heart Disease (ie, without implantation of a defibrillator). The investigators hypothesized that these patients would have a favorable prognosis and that any recurrences would not result in death.