



Venice Arrhythmias
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***COMBINED DIAGNOSTIC YIELD OF TILT TABLE TEST AND
IMPLANTABLE LOOP RECORDER TO IDENTIFY PATIENTS
AFFECTED BY SEVERE CLINICAL PRESENTATION OF
NEURALLY-MEDIATED REFLEX SYNCOPE WHO COULD
RESPONDE TO CARDIAC PACING***

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Context and Background:

The efficacy of cardiac pacing for prevention of syncopal recurrence in patients with neurally mediated syncope

<u>In favour of pacing (open-label)</u> <i>Multicenter, randomized</i>	<u>Failed to prove superiority of cardiac pacing over placebo</u> <i>Randomized, double-blind</i>
<i>SYDIT (Circulation 2001)</i> <i>2-year estimated syncope recurrence rate was 7,2%</i>	<i>VPS II Trial (JAMA 2003)</i> <i>6- months syncope recurrence rate was 31%</i>
<i>VASIS (JAMA 2003)</i> <i>2- year estimated syncope rate was 6%)</i>	<i>SYNPACE Trial (Eur Heart J 2004)</i> <i>1- year syncope recurrence rate was 29%)</i>

Context and Background:

ISSUE 2

International Study on Syncope of Uncertain Etiology 2

It showed the capacity of ILR to guide the specific therapy in the context of NMS, and confirmed that there is not a correlation between the results of TTT and the mechanism documented by ILR at the time of the syncope

Eur Heart J 2006; 27, 1085–1092

ISSUE 3

International Study on Syncope of Uncertain Etiology 3

M.Brignole, C.Menozzi, A.Moya, D.Andresen, J.J.Blanc, A.D.Krahn, W. Wieling, X.Beiras, J.C. Deharo, V.Russo, M.Tomaino, R.Sutton

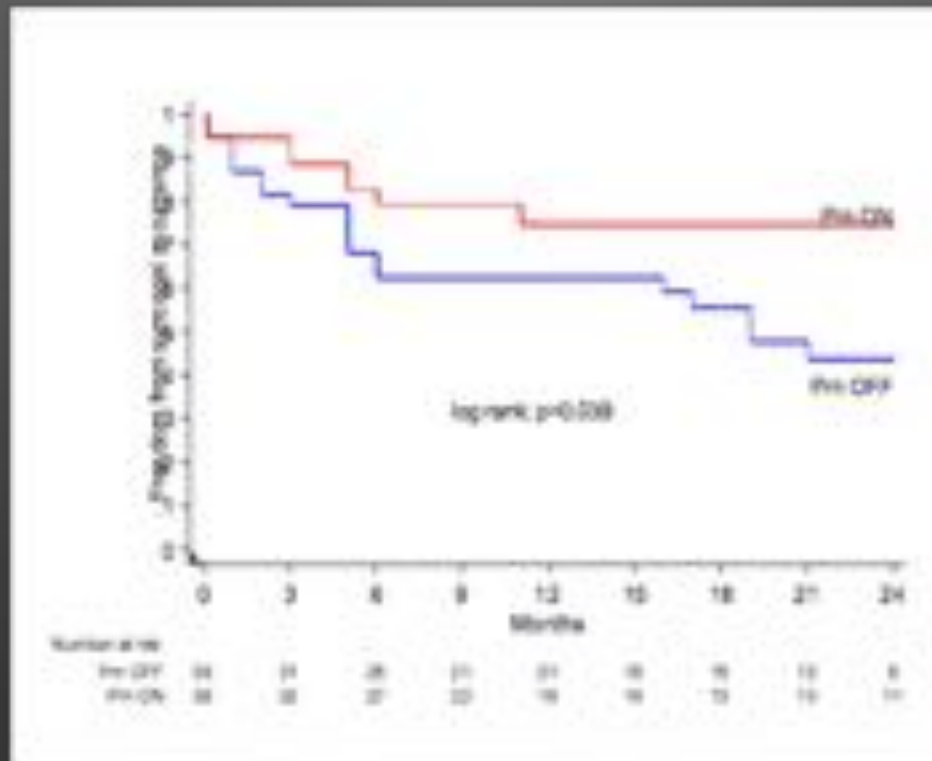
Pacing is effective in reducing recurrence of syncope in patients ≥ 40 years with severe asystolic NMS (ILR). There was 32% absolute risk reduction and 57% relative risk reduction

Circulation May 7, 2012

Context and Background:

ISSUE 3

International Study on Syncope of Uncertain Etiology 3



Circulation May 7, 2012

Methods: Patient selection

- *NMS is defined as any form of reflex syncope (except of carotid sinus syndrome)*
- *Age > 40 years*
- *Patients had to have a sufficiently **severe clinical presentation** to warrant specific treatment*

High frequency or risk provided by guidelines:

- *invalidated quality of life*
- *unpredictable syncope*
- *syncope exposing patients to risk of trauma*
- *occurrence of syncope during “high risk activity”*

Methods: Exclusion of patients

- *Cardiac abnormalities which suggested cardiac syncope*
- *Symptomatic orthostatic hypotension*
- *Non-syncopal loss of consciousness*

- patients selected by **ILR** in the context of severe clinical presentation of NMS*
- patients underwent **PM** implantation (DDD-RDR)*

*In this observational and retrospective study we wanted to observe the results of **TTT** in the groups of treated patients with and without recurrences.*

We analysed 24 patients treated using a PM (10 male and 14 female, with an average age of 70 years). Period 2008-2012

During an average follow-up period of 35 months the recurrence of syncope occurred in 7 patients (29%). 17 patients (71%) had not recurrences during the follow-up.



Recurrence: 7 patients (29%)
No syncope recurrence: 17 patients (71%)

TTT was positive in 4 patients out of seven with recurrences (in two cases documented CI): 57%

Among the 17 patients without recurrences TTT was positive only in 2 patients: 12%

17 Patients with no recurrence:



88%

TTT negative: 15 patients (88%)

TTT positive: 2 patients (12%)

$p = 0.02$

Conclusions

Positive TTT is more likely correlated with a higher frequency of recurrences of syncope in the group treated using a PM, while a negative response seems to predict the success of the pacing therapy

The rationale could be that TTT is able to highlight the importance of a concomitant hypotensive reflex

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The benefit of pacemaker therapy in patients with presumed neurally-mediated Syncope and documented asystole is greater when tilt test is negative
An analysis from the Third International Study on Syncope of Uncertain Etiology (ISSUE-3)

M.Brignole, P.Donateo, M.Tomaino, R.Massa, M.Iori, X.Beiras, A.Moya, T.Kus, J.C. Deharo, S.Giuli, A.Gentili and R.Sutton

52 Patients (26 TT+, 26 TT-) with *asystolic ILR* were treated with a PM:

- recurrence of syncope in 8 (31%) TT+ and 1 (4%) TT- patients

-pacing effective in NMS with asystole by ILR and negative TT

-no evidence of efficacy in positive TT

**-although a positive asystolic TT response predicts a clinical aystolic NMS ,
the pacing benefit is similar to that of positive non-aystolic TT response**

**Consequently PM is not sufficient in a group of patients
with positive TTT response.**