

Editor comments to:

Clinical use of microvolt T-wave alternans in patients with depressed left ventricular function eligible for ICD implantation: mortality outcomes after long term follow-up *International Journal of Cardiology, In Press, Available online 3 May 2013.*

*This is **the first published** paper on the Clinical use of MTWA (Spectral Method) in the decision to implant an ICD in patients eligible for ICD implantation demonstrating that in 5 years no one patient had cardiac death if negative to MTWA and no ICD implanted.*

Therefore this means that about 30% of patients (negative to MTWA) could avoid ICD implant with a clear reduction in Health Care cost.

Also the large Multicenter Clinical trial (1) presented as Poster at HRS 2013 has shown similar results (40% negative MTWA) with 650 patients and 2 years follow up.

Anyhow it is necessary to underline that:

- Most patients with Negative MTWA had no ICD implantation (making MTWA test in patients who will have the ICD implanted means to change the risk of that patient due to ICD implantation) (2)
- All these patients were in stable (Chronic) Heart Failure (HF) because MTWA is predictive of Arrhythmias but not of impending Acute Heart Failure. Most Acute Heart Failure patients will die soon of HF.(3-4-5)
- In the trial of Dr Molon, the patients had a wash out of betablocker of 48 hours before MTWA test so the number of indeterminate cases is very low with higher Sensitivity; therefore the prognosis is so long (5 years). Anyhow at least 12 hours wash out is recommended because MTWA amplitude under betablocker is lower (making more difficult the interpretation) and it is more difficult to reach the target HR with higher muscular noise.(5)

1. [HRS 2013 MTWA in ICD Decision Making](#) Poster

2. [MTWA Test Accurately Predicts Risk of sudden Cardiac Arrest in patients who do not already have implantable cardiac defibrillators , Meta-Analysis Finds \(Heart Rhythm 2009;6:S36 –S44\)](#)

3. [Multicenter Prospective Observational Study on Acute and Chronic Heart Failure: One-Year Follow-up Results of IN-HF \(Italian Network on Heart Failure\) Outcome Registry.](#)

4. [Spectral microvolt T-wave alternans testing has no prognostic value in patients recently hospitalized with decompensated heart failure.](#)

5. [Does HF Burden Impact Overall Survival in Patients Undergoing ICD implantation?](#) J Am Coll Cardiol 2013;61:2142-2150.

6. [Effect of Beta Blocker Therapy on Exercise-Induced Microvolt T-Wave Alternans](#) P. Ptaszynski, T Klingenhoben, S. Hohnloser (abstract Naspe 2004)