VENERDI' 13 APRILE 2018

15:00 - 15:15

AUDITORIUM

SCOMPENSO CARDIACO UPDATE 2018

THE VALID-CRT RISK SCORE RELIABLY PREDICTS OUTCOME AFTER CARDIAC RESYNCHRONIZATION THERAPY IN AN REAL-WORLD POPULATION

G. Arena [1], A. Reggiani [2], P. Palmisano [3], A. D'Onofrio [4], A. De Simone [5], S.I. Caico [6], D. Pecora [7], M. Marini [7], L. Checchi [7], T. Giovannini [7], A. Ferraro [7], A. Spotti [7], F. Solimene [7], B. Marenna [7], F. Amadori [7], A. Iuliano [8], C. Nozza [9], M. Malacrida [9], E. Bertaglia [10], G. Stabile [8]

[1] *Ospedale Apuane, Massa, ITALY*
[2] *Ospedale Carlo Poma, Mantova, ITALY*
[3] *A.O. Card. G. Panico, Tricase, ITALY*
[4] *Ospedale Monaldi, Napoli, ITALY*
[5] *Clinica S. Michele, Maddaloni, ITALY*
[6] *Ospedale S. Antonio Abate, Gallarate, ITALY*
[7] *DECODE Study Group, MIlano, ITALY*
[8] *Clinica Mediterranea, Napoli, ITALY*
[9] *Boston Scientific Italia, MIlano, ITALY*
[10] *Azienda Ospedaliera di Padova, Padova, ITALY*

Background: Several risk-stratification algorithms have been proposed as tool being able to predict outcome after cardiac resynchronization therapy (CRT). However most of them are based on complex variables makes them unreliable and impracticable in clinical practice. The VALID-CRT risk-stratification algorithm is based on few variables that are routinely available.

Purpose: To confirm the value of the VALID-CRT risk score in predicting outcome and assess its association with clinical response in an unselected real-world CRT population.

Methods: The present analysis included all consecutive CRT patients (pts) enrolled in the CRT-MORE registry from 2011 to 2013 with complete data and outcome information. Patients were stratified in five groups (quintile 1-5) according to the VALID-CRT risk score. Adverse events for the analysis of clinical outcome comprised death from any cause and nonfatal heart failure (HF) events requiring hospitalization, whichever occurred first after CRT implantation. Clinical Response (CR) at 12-month follow-up was also assessed according to a hierarchical composite criteria which includes alive status, hospitalization for HF, and variations in NYHA functional class, respectively.

Results: We included 905 patients (mean age 70±10 years, 73% male, 47% ischemic, 61% NIHA III/IV, 21% with atrial fibrillation at the time of implantation, mean LVEF 29±7%). During a median follow-up of 1005 [627-1361] days 134 patients died, 79 had at least one HF hospitalization and 199 met the combined endpoint of death or HF hospitalization. 69% of pts displayed an improvement in their CR at 12 months. The mean VALID-CRT risk score was 0.317, ranging from -0.419 of Q1 to 2.59 of Q5. The risk-stratification algorithm was able to predict total mortality after CRT (survival ranging from 93% -Q1- to 77% -Q5-; HR=1.42, 95%CI: 1.25 to 1.61, p<0.0001), HF hospitalization (event-free ranging from 95% to 90%; HR=1.24, 95%CI: 1.06 to 1.45, p=0.009) and the combined endpoint of death or HF hospitalization (event-free anging from 78% to 69%; HR=1.34, 95%CI: 1.21 to 1.48, p<0.0001). In comparison with pts with low-to-intermediate Risk profile (Q1-2-3) the CR was significantly lower in pts with high-to very high risk profile (Q4-5) (55% vs 79%, p<0.0001) and it decreases according to the severity of the risk profile (ranging from 89% -Q1- to 49% -Q5-).

Conclusion: The VALID-CRT risk score reliably predicts outcome after CRT in an unselected, real-world population. Of interest, even if this score was validated for total and cardiovascular mortality, it seems to be useful for predicting CRT response. The score may be of value in tailoring follow-up and treatment strategies in clinical practice.