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Heart Failure and Cardiomyopathies

A TNM-LIKE STAGING SYSTEM FOR RISK STRATIFICATION IN HEART FAILURE PATIENTS

Poster Contributions
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Session Title: Defining Risk, Prognosis and Stratification Tools
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Background: NYHA is the most used classification for heart failure (HF), but it does not include clinical features; we proposed HLM as a new staging system for HF, analogous to the TNM used in Oncology, which refers to heart damage (H), lung involvement (L), and malfunction (M) of peripheral organs. We compared HLM with NYHA to achieve the most accurate prognosis of HF patients

Methods: 1064 patients with the diagnosis of or at risk for HF were enrolled. We collected all parameters for heart, lungs and peripheral organs function and classified each patient according to NYHA and HLM. At 6 and 12 months patients were followed up for rehospitalization for major adverse cardiovascular and cerebrovascular events (MACCE) and cardiac death

Results: Comparing to NYHA, at 6 and 12 months follow-up HLM showed a greater area under the ROC curve (AUC) for MACCE as well as for cardiac death (Fig. 1). MACCE and cardiac death were assessed for each parameter: L and M showed the most accurate prognostic power; at 1 year follow-up L2 was significantly correlated p=0.004 with rehospitalization as well as L3 p=0.000, M1 p=0.004, M2 p=0.008 and M3 p=0.003. M2 p=0.02 was correlated with cardiovascular mortality as well as M3 p=0.004

Conclusion: Compared to NYHA, HLM better stratifies risk of rehospitalization for MACCE and cardiac death in HF patients. Lung involvement (L2-3) and organs dysfunction (M2-3) presented the most accurate prognostic power. Those preliminary results need to be confirmed in a greater population with a longer follow up

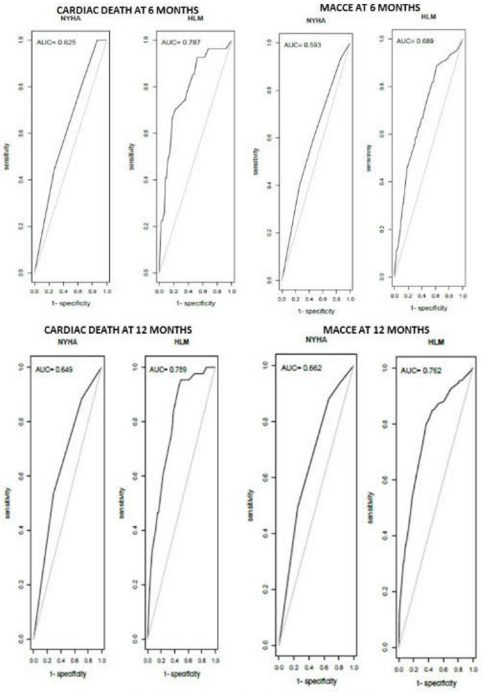

Figure1. ROC curve at 6 and 12 months follow up.