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CARDIAC FUNCTION AND HEART FAILURE

RELATION BETWEEN MYOCARDIAL VIABILITY, CLINICAL PRESENTATION, AND RISK STRATIFICATION IN PATIENTS WITH ISCHEMIC CARDIOMYOPATHY ON OPTIMAL MEDICAL THERAPY. A REPORT FROM THE STICH TRIAL

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Authors: *Federico M. Asch, Thomas A. Holly, Lilin She, Gerald Maurer, Matthias Siepe, Eric J. Velazquez, Adam Ostrzycki, Beata Sredniawa, Tiziana Attisano, Jonathan Howlett, Robert O. Bonow, Julio A. Panza, Washington Hospital Center, Washington, DC, Northwestern University Feinberg School of Medicine, Chicago, IL*

Background: Myocardial viability (MV) has been proposed as an important determinant of prognosis in patients with ischemic cardiomyopathy (IC). However, its impact on clinical characteristics and risk stratification has not been prospectively investigated. The aim of this study was to determine - in the context of a large randomized clinical trial - whether MV influences the clinical presentation of patients with IC on optimal medical therapy.

Methods: This study included 774 patients (110 women, age 61±9 years) with coronary artery disease and left ventricular ejection fraction ≤ 35% enrolled in the Surgical Treatment of IsChemic Heart failure (STICH) trial, a multicenter randomized study designed to establish the role of bypass surgery (CABG) in IC. Baseline characteristics were reported by the enrolling sites. A risk at randomization score was calculated for each patient using an equation derived from multiple variables with known power to predict 5-year risk of death without CABG. Patients underwent a viability study with either SPECT or dobutamine echo (DE), and were assessed as having MV if either ≥ 11 segments by SPECT or ≥ 5 segments by DE were considered viable, based on analysis of a subset of 144 patients who underwent both tests.

Results: Age and gender distribution were similar in patients with (n=602, 78%) and without MV. Patients with MV were less likely to have a previous myocardial infarction (78% vs. 95%; p<0.0001) and more likely to have hypertension (61% vs. 47%; p=0.001); there were no other differences in medical history. The vast majority of patients in both groups received optimal medical therapy, including aspirin (83% vs. 85%), beta-blockers (88% vs. 86%), vasodilators (91% vs. 94%), and statins (83% vs. 87%) (all p=NS). The distributions of angina and of heart failure functional class were not different (p=0.06 and p=0.39, respectively), and the risk at randomization score was similar between the two groups (11.0 vs. 11.5; p=0.73).

Conclusion: The presence of significant amounts of MV does not importantly impact on the clinical presentation or the baseline risk assessment of patient with IC on optimal medical therapy. Its influence on prognosis after CABG remains to be determined.