A143.E1343
JACC March 9, 2010
Volume 55, issue 10A

QUALITY OF CARE AND OUTCOMES ASSESSMENT

EARLY INVASIVE VS. CONSERVATIVE TREATMENT IN NON-ST-SEGMENT MYOCARDIAL INFARCTION: EVIDENCE FOR A RISK TREATMENT PARADOX?

ACC Poster Contributions
Georgia World Congress Center, Hall B5
Tuesday, March 16, 2010, 9:30 a.m.-10:30 a.m.

Session Title: Quality of Care - Acute Myocardial Infarction
Abstract Category: Quality of Care
Presentation Number: 1250-172

Authors: *Kim Smolderen, Paul S. Chan, Kensey Riley, Phil G. Jones, Donna M. Buchanan, Johan Denollet, Saket Girotra, Harlan M. Krumholz, John A. Spertus, Tilburg University, Tilburg, The Netherlands, Mid America Heart Institute, Kansas City, MO*

Background: Early invasive management, as compared with conservative management, can improve outcomes in non-ST-segment elevation myocardial infarction (NSTEMI). Whether quality of life considerations are taken into account or whether decisions for early invasive treatment are appropriately matched to patients' potential for clinical benefit in contemporary practice is unclear.

Methods: A total of 3,720 NSTEMI patients were identified from 2 U.S. multi-center, prospective registries (PREMIER and TRIUMPH). The association between pre-infarct angina frequency, quality of life (Seattle Angina Questionnaire) and the GRACE risk score with early invasive management (i.e., coronary angiography within 48 hours of admission for NSTEMI) was assessed using Poisson regression, adjusted for site, demographics, and clinical variables.

Results: A total of 2123 (57.1%) patients received early invasive treatment. Patients with daily angina were significantly less likely to receive early revascularization than patients without angina in the 4 weeks preceding their NSTEMI (45.3% vs. 58.0%), but this association was attenuated after adjustment (RR=1.02, 95%CI: 0.97-1.07, P=0.47). Patients with poor angina-specific quality of life, however, were less likely to receive early invasive treatment compared with patients with excellent quality of life (46.0% vs. 61.3%; adjusted RR=0.87, 95%CI: 0.78-0.98, P=.018). Finally, patients with a GRACE score in the highest risk decile (152-219) had the lowest rates of early invasive treatment (27.6%) compared with patients with GRACE scores in the lowest decile (25-68) (74.2%; adjusted RR per SD [1SD=38 points], 0.79, 95%CI: 0.73-0.86, P<.0001).

Conclusion: In this real-world NSTEMI cohort, patients with the highest disease burden as assessed by their pre-infarct quality of life and patients with higher GRACE risk scores were less likely to be referred for early invasive treatment than patients with less potential to benefit from revascularization. These findings highlight a potential 'risk-treatment paradox' in NSTEMI management and underscore the need to more transparently assess patients' potential benefits from treatment in routine clinical care.