PROGNOSTIC ROLE OF CA125 IN A POPULATION AT HIGH RISK FOR CARDIOVASCULAR DISEASE: RESULTS FROM THE PROBE-HF STUDY

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Background: Previous studies suggested a potential role of carbohydrate antigen 125 (CA 125) in detecting heart failure or left ventricular dysfunction. Yet, its prognostic role in asymptomatic subjects at high cardiovascular risk and no history of cardiac disease is unknown. The aim of the present study was to assess the predictive value of CA 125 in a large cohort of subjects with hypertension and diabetes from primary care.

Methods: CA-125 serum levels were were analyzed in 1012 asymptomatic subjects (mean age 66.4 ± 7.8 years, 48% males) with hypertension and/or diabetes, randomly extracted from a general practitioners’ database, where a 5.1% prevalence of asymptomatic left ventricular dysfunction had been previously assessed by echocardiography (The PROBE-HF Study). Patients were followed up for the development of major adverse cardiovascular events (MACE), defined as acute coronary syndrome, heart failure requiring hospitalization, or cardiovascular death.

Results: Cox univariate regression showed that CA-125 was significantly associated with the risk of MACE (HR 1.03, 95% CI 1.01-1.05, p=0.007). Multivariate analysis adjusting for clinical and echocardiographic confounding factors, including age, gender, hypertension, diabetes, left ventricular dysfunction, and NT-proBNP levels confirmed that CA-125 concentration independently predicted MACE (HR 1.03, 95% CI 1.01-1.05, p=0.005).

Conclusions: CA-125 appears as an independent predictor of MACE in asymptomatic subjects at high risk of cardiovascular disease. Primary care physicians need to take this result into account when screening general population.