

CARDIAC FUNCTION AND HEART FAILURE

PROGNOSTIC SIGNIFICANCE OF CARBOHYDRATE ANTIGEN 125 IN PATIENTS WITH HEART FAILURE AND PRESERVED EJECTION FRACTION

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Background: Clinical usefulness of carbohydrate antigen 125 (CA125) has been well described predominantly in patients with systolic heart failure, in which the proposed mechanism is related to stretched pericardium and hence increased production of CA125. However, little is known regarding prognostic value of CA125 in patients with heart failure and preserved ejection fraction.

Methods: We prospectively studied 101 consecutive patients hospitalized with the primary diagnosis of heart failure who had ejection fraction of 50% or greater. CA125 levels were measured by electrochemiluminescence immunoassay within 72 hours of hospitalization. The end point of the study was death or rehospitalization for heart failure, whichever came first.

Results: The mean CA125 level was 40.4 U/mL. The CA125 threshold value derived from the receiver operation characteristic curves for the prediction of the prespecified end point was 60 U/mL. Over the mean follow-up period of 8 months, 57.1% of patients who had CA125 level \geq 60 U/mL reached the study end point, compared with 25% of patients with CA125 level $<$ 60 U/mL (log-rank $P = 0.013$). Using Cox proportional hazards modeling, CA125 level was associated with increased risk of death/rehospitalization for heart failure (hazard ratio, 3.14; 95% confidence interval, 1.21-8.16; $P = 0.019$).

Conclusion: The present study has shown prognostic significance of CA125 levels in patients with heart failure and preserved ejection fraction.

