

# Time-varying predictors for clinical surveillance of small hepatocellular carcinoma.

楊國卿

Liao CS;Yang KC;Yen MF;Chen HH

摘要

## Abstract

Prognosis of small hepatocellular carcinoma depends on a constellation of time-varying predictors in association with liver function. We aimed to elucidate the impact of these time-dependent predictors on survival. Patients and Methods: A total of 108 patients with hepatocellular carcinoma smaller than 5 cm in diameter were recruited. Series of laboratory data and clinical assessments were retrieved from medical records. The time-dependent scoring system for the prediction of death was developed in accordance with a time-dependent Cox regression model. Results: Time trends for biologic predictors parallel cumulative survival of small hepatocellular carcinoma cases. Higher serum  $\alpha$ -fetoprotein level was identified as the most significant time-dependent predictor. Other significant predictors included aspartate transaminase, bilirubin, alkaline phosphatase, and albumin levels and prothrombin time. Time-dependent surveillance scoring system shows the cutoff points of scores at 6 months, 1 year, 2 years, and 3 years were 42, 21, 19, and 31, respectively; the estimates of sensitivity, 100%, 100%, 100%, and 87.5%, respectively; and the estimates of specificity . 91.26%. 67.02%, 60.27%, and 78.26%, respectively. Predictive validity for this time dependent Cox regression model, particularly within 1-year of follow-up, is good. Discussion: The dynamic relationships between time-dependent predictors and risk of death were illustrated. A time-dependent predictive scoring system using these dynamic relationships was developed for real-time surveillance. [ ABSTRACT FROM AUTHOR]