Age, creatinine, ejection fraction predict post-MI survival

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(HealthDay)—A simple age, creatinine, and ejection fraction (ACEF) score can predict one-year mortality risk in myocardial infarction 30-day survivors who underwent percutaneous coronary intervention, according to a study published in the May 1 issue of The American Journal of Cardiology.

Jang Hoon Lee, M.D., from Kyungpook National University Hospital in Daegu, South Korea, and colleagues examined whether the ACEF score could predict one-year mortality for 12,000 post-myocardial infarction 30-day survivors who underwent percutaneous coronary intervention. Twelve risk factors were selected and ranked based on their area under the curve (AUC) value.

The researchers found that the best AUC value was indicated by age,
ejection fraction, and serum creatinine levels. Nonsurvivors had a significantly higher ACEF score (1.95 ± 0.82 versus 1.28 ± 0.5); the ACEF score independently predicted one-year mortality (adjusted hazard ratio, 2.26). A prediction model including 12 risk factors had the best accuracy (AUC, 0.8), but this was not significantly different from the ACEF score (AUC, 0.79). For the ACEF_LOW, ACEF_MID, and ACEF_HIGH groups, the adjusted hazard ratios for one-year mortality were 1 (reference), 3.11, and 10.38, respectively.

"The ACEF score may be a novel valid model to stratify the one-year mortality risk in 30-day survivors who underwent percutaneous coronary intervention after myocardial infarction," the authors write.

More information: Abstract
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