In STEMI, hyperglycemia tied to larger myocardial area-at-risk

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(HealthDay)—For patients with ST-segment elevation myocardial infarction (STEMI), hyperglycemia is associated with larger area-at-risk and infarct size, and the effect of exenatide treatment is independent of glucose levels, according to a study published online Feb. 28 in *Diabetes*.

Jacob Lønborg, M.D., Ph.D., from Copenhagen University Hospital in Denmark, and colleagues examined the correlation between hyperglycemia and infarct size, myocardial salvage, and area-at-risk in a cohort of 210 patients with STEMI. Participants were randomized to receive intravenous exenatide or placebo before percutaneous coronary intervention, and the interaction between exenatide and hyperglycemia was assessed.

The researchers found that larger area-at-risk and infarct size were seen for patients with hyperglycemia versus those with normoglycemia, but

no difference was seen between the groups in the salvage index and infarct size after adjustment for area-at-risk. For patients with hyperglycemia and those with normoglycemia, exenatide treatment correlated with increased salvage index.

"Thus, we conclude that the association between hyperglycemia upon admission and infarct size in STEMI patients is a consequence of a larger myocardial area-at-risk but not on a reduction in myocardial salvage. Also, cardioprotection by exenatide treatment is independent of admission glucose levels," the authors write. "Hyperglycemia does not influence the effect of the reperfusion treatment but rather represents a surrogate marker for the severity of myocardium at risk and injury."

One author disclosed being a shareholder in CellAegis; several authors disclosed financial ties to Eli Lilly.

More information: Abstract
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