急性心不全に対する医師の考え方を変える (LBCT.01)

TRUE_AHF：急性非代償性心不全における緊急の血管拡張の短期および長期効果

TRUE_AHF: Short and long-term effect of immediate vasodilator therapy in acutely decompensated heart failure

急性心不全で入院した患者において、早期における心内圧を低下させる短期薬物療法は心筋傷害を予防し長期の有益性をもたらす、とこれまで医師は考えていた。2016年American Heart Association学術集会で発表されたTRUE-AHFトライアルにおいて、ularitide（ナトリウム利尿ペプチド）を投与された患者では、心ストレスが軽減し、過剰循環血液量の徴候が減少し、薬物投与中の心不全発現が少なかったことが示された。しかし、この薬剤の短期治療は、心筋傷害指標を改善せず、その後の心血管疾患による入院や死亡リスクを変化させなかった。

Full Text

In the TRUE-AHF trial presented at the American Heart Association Scientific Sessions 2016, patients with acutely decompensated heart failure who received ularitide showed a reduction in cardiac stress, had reduced signs of excess circulatory volume, and had fewer episodes of heart failure during the time that the drug was given.

Physicians have long hoped that early short-term drug therapy to lower pressures inside the heart in patients hospitalized with acute heart failure might prevent myocardial injury and have long-lasting benefits. However, the results of the TRUE-AHF trial demonstrate that such intravenous treatments produce improvement while they are given but do not yield sustained favorable effects after the treatments are stopped.

The TRUE-AHF trial (TRial of Ularitide's Efficacy and safety in patients with Acute Heart Failure) is the first randomized, double-blind, parallel-group, placebo-controlled, event-driven trial in patients with acute heart failure to evaluate the long-term effect of intravenous treatment on the risk of cardiovascular death. The trial studied 2157 patients (aged 18-85 years) with acute heart failure who presented with shortness of breath at rest to an emergency department or hospital. Within 12 hours of their initial evaluation, patients were randomly assigned (in a 1:1 ratio) to receive either placebo or the investigational natriuretic peptide ularitide (15 ng/kg/min) intravenously for 48 hours, in addition to their usual treatment for acute heart failure. Physicians were able to administer the drug quickly (on average, within 6 hours), which represents the earliest time to treatment of any trial in such patients.

Ularitide was selected for the trial because it had been previously shown to reduce elevated pressures inside the heart in patients with acute heart failure. The drug is a chemically synthesized form of a human natriuretic peptide, normally produced by the kidneys. When given intravenously, it had previously been shown to lower blood pressure as well as pressures inside the heart and to promote urine output.

Patients who received ularitide showed a reduction in cardiac stress, had reduced signs of excess circulatory volume, and had fewer episodes of heart failure during the time that the drug was given. However, short-term treatment with the drug did not improve measures of heart injury and did not alter the subsequent risk of cardiovascular hospitalization or cardiovascular death.

The trial demonstrated the effects and safety of ularitide. However, to gain long-term benefits on hospitalizations and death in patients following a hospital admission for heart failure, physicians must focus on the drugs that patients take as an outpatient rather than the drugs they receive as an inpatient.