血栓溶解薬は血管形成術と同程度に有効である（Abstract # 13-LB-15699）

STREAM: 病院到着前のtenecteplase投与は一部の心筋梗塞患者において有益である

STREAM: Treatment with tenecteplase before hospital benefits some patients suffering myocardial infarction

血栓溶解療法は緊急血管形成術を行うことのできない一部の心筋梗塞患者において有益である可能性があるとのレイトブレイキングトライアルの結果が第62回American College of Cardiology学会で発表され、同時に*New England Journal of Medicine*に掲載された。Strategic Reperfusion Early After Myocardial Infarction（STREAM）トライアルにはST上昇心筋梗塞（STEMI）患者1,915人を組み入れた。患者は初めにカテーテルインターベンション（PCI）の施行できない状況で、地域病院または救急隊員により診察された。大規模な医療機関に転送される前に、患者は到着直後にPCIを施行される群、またはtenecteplaseとエノキサパリンとの併用および到着前のクロピドグレルおよびアスピリンによる薬物療法群にランダムに割り付けられた。大規模医療機関へ転送された時点で、tenecteplase患者の約3分の1が緊急血管形成術を必要とした。一次エンドポイント（総死亡、ショック、うっ血性心不全および30日以内の心発作の合計）は緊急PCI群とtenecteplase群とで同等であった（14.3%対12.4%、*P*=0.211）。心臓特異的死亡率または心疾患による再入院に関して差はなかった。Tenecteplase群の方が冠動脈造影上正常な血流を有する確率が高かった（58%対21%）。また同群はPCI施行群よりも冠動脈完全閉塞を有する率が低かった（16%対59%）。

Full Text

A clot-busting therapy may benefit some myocardial infarction patients who cannot have immediate angioplasty, according to research presented at the American College of Cardiology's 62nd Annual Scientific Session.

"Drug therapy before transfer is at least as effective as [angioplasty], and an urgent catheterization was avoided in two-thirds of patients," said Frans Van de Werf, M.D., Ph.D., professor of cardiology at University of Leuven, Belgium, and the study's lead investigator. "It gives [clinicians] time to consider other options, such as [coronary artery bypass graft] and medical therapy."

The Strategic Reperfusion Early After Myocardial Infarction (STREAM) trial included 1,915 patients from 15 countries. All had ST-elevation myocardial infarction (STEMI). Patients were first seen in community hospitals or by emergency medical personnel. In these settings, immediate percutaneous coronary intervention (PCI) —the preferred first-line treatment for STEMI—was not possible until patients were transferred to a major medical center.

Before transfer, subjects were randomized to either angioplasty immediately after arrival or to drug therapy with tenecteplase plus enoxaparine, clopidogrel and aspirin before arrival. When patients on tenecteplase reached a medical center, about one-third needed urgent angioplasty. The other two-thirds did not. They received an angiogram an average of 17 hours after arrival. Based on the results of the angiogram, patients received either PCI or coronary artery bypass graft surgery under non-urgent circumstances.

The primary endpoint was a composite of all-cause mortality, shock, congestive heart failure and subsequent myocardial infarction within 30 days. Results were similar between the immediate PCI group and the tenecteplase group (14.3 vs. 12.4 percent, *P*=0.211). There were no differences in cardiac-specific mortality or cardiac rehospitalization.

Patients receiving tenecteplase were more likely to have normal blood flow on an angiogram, compared with the PCI-only group (58 vs. 21 percent). They were less likely than the PCI-only group to have an angiogram show complete blockage of an artery (16 vs. 59 percent). More tenecteplase patients than PCI-only patients eventually underwent coronary artery bypass graft surgery.

During the course of the trial, researchers halved the dose of tenecteplase in people ages 75 and older to minimize cranial bleeding, a common complication of clot-busting therapy. The incidence of such bleeding in the total study population was 0.5 percent after the dose reduction.

"We offer this pharmaceutical strategy with timely coronary angiography as an alternative to primary PCI," Dr. Van de Werf said. "We believe that it may be helpful in some early-presenting patients for whom immediate PCI is not possible."

The study was funded by Boehringer Ingelheim. Dr. Van de Werf's institution, the University of Leuven, received a grant from Boehringer Ingelheim to conduct the STREAM trial, as well as funding for a study of dabigatran in patients with a mechanical heart valve.

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