Fibrinolytic Therapy: What Size to Fit All?

To The Editor:

I read with interest the series of articles addressing one of the most interesting debates in modern cardiology.\textsuperscript{1–3}

Unfortunately, for the great majority of patients with acute ST-elevation myocardial infarction (STEMI) in Croatia, use of primary percutaneous coronary intervention (PCI) as a therapeutic option is still a daydream. As in other developing countries, this choice is applicable only for the selected patients who live close to specialized units for PCI and who present early after onset of STEMI. In reality, patients from county hospitals, including my hospital, who come to the emergency department immediately after onset of STEMI have the choice of fibrinolytic therapy with streptokinase. The second choice, but only for a small number of patients treated in the previous 6 months with streptokinase, is alteplase. As we have learned from the results of The National Registry of Myocardial Infarction 2 study, only 31\% of patients are eligible for fibrinolytic therapy.\textsuperscript{4} So the majority of patients treated for STEMI will not receive reperfusion therapy.

Early transportation of patients for primary PCI is not possible in countries where funds are limited. Therefore, we have to better define the most appropriate way for increasing the quality of care for potential STEMI patients. One-size reperfusion therapy will not suffice.

Mario Ivanuša, MD

Department of Internal Medicine
Bjelovar General Hospital
Bjelovar, Croatia
mivanusa@vip.hr


Response

Dr Ivanuša’s comments are a vivid reminder that fibrinolysis will remain the standard of care for patients with ST-elevation myocardial infarction (STEMI) worldwide. In our view, it represents an excellent therapy and one that is far preferable to no reperfusion; this includes the elderly.\textsuperscript{1,2} Even the first-generation fibrinolytic, streptokinase, fared equally well to percutaneous coronary intervention (PCI) within the first 3 hours in the PRAGUE 2 experience (PRimary Angioplasty in patients transferred from General community hospitals to specialized PTCA Units with or without Emergency thrombolysis).\textsuperscript{3} Moreover, delivering PCI for STEMI, especially in off-hours, remains problematic and associated with a worse outcome.\textsuperscript{4} The National Registry of Myocardial Infarction study, to which Ivanuša refers, actually indicates that 41\% of patients presented >6 hours from symptom onset; many of those should be treated, especially if they are present within 12 hours, with appropriate clinical and ECG findings. The 25\% of that sample without diagnostic ECGs cannot be characterized as undertreated STEMI.\textsuperscript{5}

Much can be done to enhance the overall outcomes of STEMI patients receiving fibrinolysis, even when resources are limited. This includes a focus on early recognition, as well as enhanced triage of those with cardiogenic shock in whom contraindications to fibrinolysis exist. Enhancing the capacity of nonphysician providers, careful assessment of ST-segment resolution postfibrinolysis, and vigilance for symptoms of recurrent ischemia will contribute to optimizing care. We heartily agree that one size will not fit all and that therapy should be individually tailored and adaptable to local environments.

Paul W. Armstrong, MD

Department of Medicine
Division of Cardiology
University of Alberta
Edmonton, Alberta, Canada

Désiré Collen, MD, PhD

Center for Molecular and Vascular Biology
Katholieke Universiteit Leuven
Leuven, Belgium

Elliott Antman, MD

Cardiovascular Division
Brigham and Women’s Hospital and
Harvard Medical School
Boston, Mass

Fibrinolytic Therapy: What Size to Fit All?
Mario Ivanusa

Circulation. 2003;108:e170
doi: 10.1161/01.CIR.0000108167.21070.15
Circulation is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
Copyright © 2003 American Heart Association, Inc. All rights reserved.
Print ISSN: 0009-7322. Online ISSN: 1524-4539

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://circ.ahajournals.org/content/108/25/e170

Permissions: Requests for permissions to reproduce figures, tables, or portions of articles originally published in Circulation can be obtained via RightsLink, a service of the Copyright Clearance Center, not the Editorial Office. Once the online version of the published article for which permission is being requested is located, click Request Permissions in the middle column of the Web page under Services. Further information about this process is available in the Permissions and Rights Question and Answer document.

Reprints: Information about reprints can be found online at:
http://www.lww.com/reprints

Subscriptions: Information about subscribing to Circulation is online at:
http://circ.ahajournals.org//subscriptions/