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.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.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.

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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.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).3 Moreover, delivering PCI for STEMI, especially in off-hours, remains problematic and associated with a worse outcome.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.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.

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References
