

upon the interaction of these cultural factors with the vulnerabilities of individual women.

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Fibrinolytic therapy for acute ST-segment elevation myocardial infarction

In Paul Armstrong's review article on fibrinolytic therapy for acute ST-segment elevation myocardial infarction, the fibrinolytic or thrombolytic treatment recommended for the case presented is not completely supported by the evidence cited.¹ In the Fibrinolytic Therapy Trialists' study a non-significant reduction in mortality of 1% was observed in the group of patients over 75 years of age who were administered fibrinolytics.² Armstrong also cited a subgroup analysis confined to patients in the same age group who received fibrinolysis within 12 hours of symptom onset, in which there was an absolute risk reduction of 3.4% in the treated group.³ In contrast, a retrospec-

tive and nonrandomized study mentioned by Armstrong showed a survival disadvantage in those patients over 75 years of age given thrombolytics.⁴ In the treated group, there was an excess mortality of 2.6%. The author of this last study has commented in *CMAJ* on this finding.⁵ Therefore, the evidence for administering fibrinolytics to patients older than 75 years does not appear to be as strong as in younger age groups.

A further issue relating to the patient presented in Armstrong's article is the decreased benefit of fibrinolysis in patients with an inferior infarction. In the Fibrinolytic Therapy Trialists' study, the absolute risk reduction in patients with inferior infarctions was 0.9% whereas it was 3.7% in patients with anterior infarctions.²

Given the fixed risk of complications of fibrinolysis in elderly people, in particular intracranial hemorrhage, one might question whether the risks are in fact outweighed by the benefits in the patient presented and how the information about these risks and benefits might be transmitted to the patient and her family to obtain informed consent before administration of fibrinolysis.⁶

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[The author responds:]

Anthony Kerigan's thoughtful letter provides me a welcome opportunity to expand on the important issue of fibrinolytic therapy in the elderly. Although the evidence for fibrinolysis in patients older than 75 years is somewhat less strong than that for younger patients (on the basis of numbers of patients treated), it remains, in my view, convincing.¹ The retrospective administrative data reported by Thiemann and colleagues have significant deficiencies, including exclusion of patients with left bundle branch block and patients who were treated in hospitals with on-site angioplasty capability.² A more recent and more comprehensive study from the Swedish Register of Cardiac Intensive Care included every patient admitted to the coronary care unit at 58 participating hospitals and involved 5428 patients more than 75 years of age with acute myocardial infarction who were admitted with ST-segment elevation or left bundle branch block; this study revealed that the combined end point of cerebral bleeding plus death from any cause at 1 year was significantly lower in the group treated with reperfusion (38.3%) than in the conservatively treated group (48.4%; $p < 0.001$).³

It is important to emphasize that the risk to life of myocardial infarction in patients over 75 years is much greater than in younger patients; the risk of intracranial hemorrhage is also significantly increased in this population and approximately two-thirds of these intracranial hemorrhages are fatal. Thus, the majority of intracranial hemorrhages are accounted for in the mortality statistics reported. Although this attenuates the relative benefit, it still demonstrates the substantial number of lives per 100 patients treated that can be saved with effective reperfusion therapy.

With respect to the case presented, it is important to recognize that not all inferior myocardial infarctions are the same.⁴ Hence, the elderly woman of low body weight with a tachycardia and congestive heart failure presenting within 4 hours with a clear inferior in-

jury pattern (after resuscitation from a ventricular fibrillation arrest) has a much higher risk of mortality than a patient with an average inferior myocardial infarction of the type reported in the Fibrinolytic Therapy Trialists' overview, i.e., at least 17.4% on the basis of a simple risk index calculation derived from the InTIME II substudy.⁵ Thus, the benefits in this case clearly outweigh the risks.

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Risk factors for cardiovascular disease

Most patients do not show any of the conventional risk factors for cardiovascular disease.¹ In a recent *CMAJ* article, Jean-Pierre Després and colleagues emphasized the need to look beyond traditional risk factors, such as the plasma level of low-density lipoprotein cholesterol, as they might not provide enough predictive power for accurate risk stratification.² The authors focused on a cluster of factors characterizing the "metabolic syndrome" and especially on the novel measurement of the ratio of total cholesterol to high-density lipoprotein cholesterol.

In a recent study in which we evaluated the cardiovascular risk profile of elderly male patients, we confirmed the

limited significance of traditional risk factors, such as total cholesterol or low-density lipoprotein cholesterol levels, and we observed a striking relationship between cardiovascular disease and the ratio of total cholesterol to high-density lipoprotein cholesterol.³ However, we also noted that the high levels of lipoprotein(a) and homocysteine in these patients may have contributed to the development of cardiovascular complications in our clinical setting. These 2 factors, along with an elevated ratio of total cholesterol to high-density lipoprotein cholesterol, were highly predictive for cardiovascular disease. Therefore we agree with Després and colleagues on the need to look beyond low-density lipoprotein cholesterol and we further suggest that lipoprotein(a) and homocysteine measurements be included when assessing cardiovascular risk.

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Waiting times for cancer surgery

I enjoyed reading the article by Marko Simunovic and colleagues on waiting times for cancer surgery.¹ I was particularly intrigued by the fact that there were no age-related differences in median waiting times from referral to surgery. This is somewhat surprising, given the growing body of literature

suggesting that older adults with cancer receive less aggressive diagnostic workups and treatments than younger adults.²⁻⁷

The investigators analyzed all tumour types together for patients aged 50 years or less, 51 to 65 years and 66 years or more. Given that they demonstrated differences in waiting times across cancer types, and given that some cancers are more common than others in different age groups, this analysis may mask true age-related differences in waiting times. Did the authors examine age-related waiting times separately for each tumour type?

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[One of the authors responds:]

Our group, like Shabbir Alibhai, was surprised at the lack of a significant difference in waiting times to cancer surgery among our selected age groups.¹ We did examine the relationship between age and time to surgery for each of the 6 cancer types included in the study; there were still no significant variations. We again caution read-