Thrombolysis in the Presence of an Intracranial Meningioma

To the Editor:

The presence of an intracranial space-occupying lesion (SOL) is considered an absolute contraindication to thrombolytic therapy during acute myocardial infarction (AMI) because such lesions are potential sites for intracranial hemorrhage. Patients with an SOL were therefore excluded from thrombolytic trials. We report a case of inadvertent thrombolysis in a patient with an intracranial meningioma.

A 62-year-old woman was admitted to our hospital complaining of left-sided chest pain of 1- h duration. The patient claimed to be healthy. On hospital admission, the BP was 120/80 mm Hg and the pulse rate was 100 beats/min and regular. Results of the physical examination were otherwise normal. An ECG revealed normal sinus rhythm with 5-mm ST segment elevation in leads V1 through V6. The patient received 1.5 million units of IV streptokinase, as well as aspirin, propranolol, IV heparin, and nitroglycerin. The chest pain resolved within minutes of streptokinase administration and the ECG evolution was compatible with successful reperfusion. The following day, the patient disclosed that 4 years previously, after having developed vertigo, an MRI of the brain had demonstrated a dura-based left cerebellar pontine angle lesion 1 cm in diameter consistent with a meningioma. During follow-up, no neurologic defects had appeared and the lesion had not enlarged. Despite the presence of an SOL, anticoagulant therapy was continued without neurologic sequelae and the patient was discharged from the hospital in good health.

Thrombolytic therapy reduces early mortality in patients with extensive acute anterior wall myocardial infarction by 25 to 50%. Among patients recruited to the major thrombolytic trials, the overall risk of intracranial hemorrhage was 0.75%, but ranged from 0.26 to 2.17%. Risk factors for bleeding include age, body weight less than 70 kg, hypertension on hospital admission, and alteplase therapy. Intracranial meningiomas are common, but rarely cause hemorrhagic stroke and are not considered an absolute contraindication to anticoagulation. A computerized MEDLINE search from 1966 to 1996 revealed no reports of thrombolytic therapy in patients with an intracranial meningioma.

Because of logistic considerations, timely direct coronary angioplasty is not a realistic alternative to thrombolytic therapy for most patients presenting with AMI. A physician must decide for each individual patient whether the potential benefits of thrombolytic therapy outweigh the risks. We suggest that if a patient with an intracranial meningioma presents with an extensive anterior wall AMI, and direct coronary angioplasty is not available, thrombolytic therapy may be considered and could prove lifesaving.

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REFERENCES

2 Fibrinolytic Therapy Trialists’ (FTT) Collaborative Group. Indications for fibrinolytic therapy in suspected acute myocardial infarction: collaborative overview of early mortality and major morbidity results from all randomized trials of more than 1,000 patients. Lancet 1994; 343:311-22

Erratum

To the Editor:

In the article “Ventilation-Perfusion Response After Fenoterol in Hypoxemic Patients With Stable COPD” by Viegas et al (CHEST 1996; 110:71-7), a sentence in the abstract section “Conclusions” was incorrect. The sentence should have read, “In this population of COPD patients, high-dose fenoterol therapy significantly increased heart rate and cardiac output resulting in minor adverse consequences on arterial oxygenation and VA/Q relationships.”