Thrombolysis in Myocardial Infarction and Double Aortocoronary Bypass in a Patient on Continuous Ambulatory Peritoneal Dialysis

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Sir,

Cardiovascular diseases appear to be the leading cause of death in patients receiving long-term dialysis, and accelerated atherosclerosis is mainly responsible for vascular lesions in uremic patients [1,2]. Moreover hypertension, coronary artery disease, myocardial failure, cardiac calcifications, arrhythmias, and pericarditis are more common in these patients compared to the general population [3].

We have observed a 53-year-old woman admitted in October 1983 because of microhematuria and proteinuria with clinical and renal histological features of Henoch-Schönlein syndrome: her serum creatinine was 1.4 mg/dl. In November 1984 she was readmitted for rapid deterioration of renal function (serum creatinine, 6 mg/dl) and she was treated with pulses of steroid and plasma exchange: serum creatinine returned to 3.17 mg/dl. She developed diabetes and hypertension during steroid treatment. Eighteen months later (March 1985) she was begun on continuous ambulatory peritoneal dialysis for end-stage renal failure. She had experienced angina pectoris during the previous 6 months and therefore she was treated with calcium channel blockers and nitrates.

In April 1986 she presented with prolonged anginal pain and hypotension: ECG tracings showed signs of an acute ischemic lesion of the inferior cardiac wall. Laboratory examinations showed: lactate dehydrogenase 1,031 IU, and creatine kinase 1,366 IU with high levels of MB isoenzyme. She was treated with urokinase by intravenous infusion (a 'pulse' of 600,000 U followed by 1,500,000 U in 60 min) with partial regression of the ischemic lesion; afterwards the patient was treated with heparin and nitrates.

Because of unstable angina, she underwent coronary arteriography showing multiple severe coronary obstructive lesions (90% of the right coronary, 100% of the left circumflex coronary and 70% of the left anterior descending coronary). A double aortocoronary bypass procedure was then performed on the left anterior descending coronary and right coronary arteries. In the follow-up period

(10 months) she seldom complained of episodes of mild exertional anginal pain, which were treated with nitrates.

Although the management of long-term dialysis patients with acute myocardial infarction is similar to that of nonuremic patients, we are not aware of any uremic subject treated in an early phase of myocardial infarction with pharmacological thrombolysis. In our patient urokinase was chosen because it has less fibrinolytic activity and less hemorrhagic complications than streptokinase [4].

In the literature several dialysis patients who underwent coronary bypass have been reported [5]: coronary artery bypass surgery may improve unstable angina and possibly increase the survival rate in selected patients [6].

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