To the Editor:

Caplan et al in their recent review article mentioned, based on personal communications, that angiography of Chinese patients with ischemic stroke frequently reveals middle cerebral artery (MCA) occlusive disease while internal carotid artery (ICA) disease is unusual. Results of our previous angiographic study on 47 Chinese patients with carotid system transient ischemic attacks (TIA) and 54 with non-embolic cerebral infarction (NECI) may provide angiographic features of occlusive cerebrovascular disease in Chinese patients, which can be summarized as follows:

1. In patients with carotid TIAs, a normal or nearly normal angiogram of the symptomatic carotid system was obtained in 45%; the site of arterial lesion was mainly extracranial in about 40% and intracranial in 15%. An atheromatous lesion of the carotid bifurcation was found in about one-third of the patients. Of those with intracranial arterial lesions, slightly more than half were carotid siphon stenosis, and an MCA occlusion was found in only 2 patients (4.3%).

2. In patients with NECI, arterial lesion of the intracranial portion was 2.3 times more frequent than of the extracranial. The prevalence of occlusive lesion in the MCA and ICA were found to be almost equal, about 25%. Approximately half of ICA disease was carotid siphon stenosis or occlusion. Extracranial ICA disease was uncommon. It is concluded that extracranial ICA disease is uncommon in patients with NECI, but still contributes to the pathogenesis of carotid TIAs in more than one-third of cases. Both the carotid siphon and the MCA are important sites of intracranial occlusive disease.

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References

Bed Rest After Ischemic Stroke Is Not a Main Reason for the Decline in Arterial Blood Pressure

To the Editor:

I should like to comment on the interesting paper by Grotta et al, "Baseline hemodynamic state and response to hemodilution in patients with acute cerebral ischemia," published in Stroke. This is a pilot study of 9 consecutive patients at the acute stage of cerebral infarction (CI). We agree with the authors that despite the interest in hemodilution for acute stroke and its basis in cardiovascular physiology, there are no well known published data up to 1985 on the baseline systemic (or general) hemodynamic status of patients entering the hospital with acute CI. Such data are necessary for designing protocols that will optimize the desired effects on viscosity and cardiac pump function and that will be safe in patients who often have impaired cardiac function. However, we do not agree with the authors that the gradual decline in mean arterial blood pressure, which is often seen in patients after stroke, is due to bed rest. Grotta et al have measured main parameters of systemic hemodynamics during the first 3 days in 9 patients after CI. We have repeatedly measured main parameters of systemic hemodynamics during the first 2 weeks with 76 patients after CI. Some data are now available and another part is in press (in Cor et Vasa). Some information we can give here.

A clinical series of 76 patients with CI was repeatedly investigated, using noninvasive techniques, i.e., integral rheography of the whole body. This method makes it possible to evaluate main parameters of general hemodynamics (left ventricular stroke volume, heart rate, cardiac output, and some others). It was shown that the heart rate, the cardiac output, and all components of the arterial pressure decrease considerably during the acute stage of the disease. These patients were divided into 2 groups: 1) patients with the ability to walk (including with assistance, n = 60) after 2 weeks, and 2) patients without the ability to walk (n = 16), who also have the lowest activities of daily living (ADL) score. The treatment in both groups was similar. There were no comatose patients in either group, no clinically diagnosed myocardial infarctions, and no deaths. The left ventricular stroke volume, heart rate, cardiac output, and diastolic blood flow did not differ significantly between the 2 groups. There was a significant difference between the systolic blood pressure values (mean ± SEM), 157 ± 5 and 178 ± 4 mm Hg (p < 0.05) on the first day after CI, but no difference on the 14th day (142 ± 4 and 144 ± 7 mm Hg, respectively, for Groups 1 and 2). The present data show that the patients with poor prognosis (Group 2) have a higher initial systolic blood pressure than the others; however, in both groups a significant (p < 0.05) decrease in blood pressure takes place. We conclude that bed rest or the inability to walk (low ADL score) 2 weeks after an ischemic stroke is not a main reason for the decline in arterial blood pressure.
Angiographic features in Chinese patients with occlusive cerebrovascular disease.

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*Stroke*. 1987;18:686
doi: 10.1161/01.STR.18.3.686.a

*Stroke* is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
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Print ISSN: 0039-2499. Online ISSN: 1524-4628

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