Internal Carotid Artery Recannulation After Thrombosis Caused by Atherosclerotic Occlusion of the Common Carotid Artery

Joseph P. Archie, Jr., Ph.D., M.D.

Recannulation of a thrombosed internal carotid artery in a patient with recurrent cerebrovascular symptoms is reported. Reconstruction was by dilatation and saphenous vein bypass angioplasty.

ALTHOUGH recannulation of a thrombosed normal artery is not uncommon, recannulation of the internal carotid artery after atherosclerotic occlusion of the common carotid artery, with thrombosis of the internal and external system, is unusual. A symptomatic patient with recannulation of the internal carotid artery is described.

CASE REPORT

In March of 1981, a 65-year-old right-handed man had a severe left cerebral infarction with transient impaired sensorium and right hemiplegia. His mental function returned, but he had mild residual right arm and leg weakness. Arteriography showed complete occlusion of the left common, internal and external carotid arteries. In April 1982, the patient had two reversible ischemic neurologic events relative to the left cerebral hemisphere, with speech impairment and increased right arm weakness. A computerized axial tomographic scan showed a left middle hemisphere scar and a questionable new ischemic area. Noninvasive vascular laboratory studies indicated left common carotid artery occlusion; however, Doppler velocity signals were detected in the internal or external carotid arteries. The left eye Gee oculoplethysmographic pressure was 17 mm Hg lower than the right. An arteriogram showed late filling of the left internal carotid via the superior thyroid artery. Two weeks after the second reversible neurologic ischemic deficit, the patient underwent revascularization. The internal carotid artery contained web-like hyperplasia in the wall, extending into the lumen, which was consistent with recannulation. It was dilated bluntly to 2.5 mm. A saphenous vein bypass with patch angioplasty of the carotid was placed on the internal carotid artery from the left subclavian artery. The postoperative course was uneventful and oculoplethysmography showed an improvement in left-eye pressure. At 30-month follow-up, the patient has no recurrent symptoms and the graft remains patent.

DISCUSSION

Patients with common carotid artery occlusion may have patent internal carotid arteries even though they are not visualized angiographically, and accordingly, they are candidates for revascularization. This case is of

From Wake Medical Center, Raleigh, North Carolina; and The University of North Carolina, Chapel Hill, North Carolina.

Address for reprints: Joseph P. Archie, Jr., M.D., 3417 Williamsborough Court, Raleigh, North Carolina 27609.
interest because it illustrates that patients with new or recurrent lateralizing cerebral vascular symptoms may have a patent recannulized ipsilateral internal carotid artery that was previously documented to be occluded. Objective evidence of patency of — or flow in — the internal carotid artery should be sought in symptomatic patients with common carotid occlusion.

REFERENCES
