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IMAGING BEFORE CAROTID ENDARTERECTOMY

The June 1998 issue of the *Canadian Journal of Surgery* contained a symposium on cerebral disease.

In this symposium Dr. Randolph Guzman presented an interesting article on appropriate imaging before carotid endarterectomy (page 218). In Dr. Guzman's article was a section dedicated to duplex ultrasonography as the only means of preoperative investigation for carotid artery surgery. He mentioned that von Reutern, Ortega-Suhrkamp and Spillner in 1978 were the first to report a carotid endarterectomy done on the basis of duplex scanning alone.¹ In 1982, Blackshear and Connar² reported 4 patients operated on after duplex scanning alone, owing to an allergy to contrast medium.

From a historical perspective, it is pertinent to mention that Paul Cartier in Montreal, started performing carotid endarterectomy, based on continuous Doppler scanning alone, as early as 1980.³ By the end of 1982 he had already performed 14 such procedures. In fact, in selected cases, he started performing carotid endarterectomy without angiography even earlier. From 1967 to 1979, 30 patients underwent carotid endarterectomy based on physical findings and symptoms. Most of them (90%) were symptomatic. All had a significant bruit. The reasons for proceeding without angiography were: evolving stroke (17%), recent cerebrovascular accident (27%), transient ischemic attack or amaurosis fugax (30%), lipothymia (17%), chronic renal insufficiency (3%) and iodine allergy (10%). Significant stenosis was

found in all patients and there were no operative deaths. The mean (and standard deviation) trans-stenotic gradient and residual back-flow pressure were 39 (31) mm Hg and 54 (18) mm Hg. Three patients had recent internal carotid thrombosis that could be successfully thrombectomized, and 1 patient had long-standing internal carotid artery occlusion. This patient, who initially presented with symptoms of amaurosis fugax, was found to have a "stump" syndrome, which was successfully corrected.

Dr. Cartier, after witnessing 2 carotid angiography-related strokes in patients who had extensive peripheral atherosclerotic vasculopathy, recognized the potential harm of selective carotid angiography in these patients. These 2 patients presented with recent transient ischemic attacks or stroke and both had a significant carotid bruit ipsilateral to the affected hemisphere. These events prompted Dr. Cartier to seek alternative investigations in patients at risk during angiography. Unfortunately, during these early years the less invasive imaging techniques, such as Doppler and duplex scanning were not available. Although such an approach has been subjected to severe criticism, it was in a certain way a precursor to the current practice and as such should be recognized as pioneering work in the field of carotid artery surgery.

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References

1. von Reutern GM, Ortega-Suhrkamp E, Spillner S. Is noninvasive Doppler sonography alone sufficient to indicate carotid surgery? In: Meyer JS, Lechner M, Reivich M, editors. *Cerebral vascular disease 2: proceedings of the 9th International Salzburg Conference, September 27-30, 1978*. International congress series. New York: Elsevier; 1979. p. 46-9.
2. Blackshear WM Jr, Connar RG. Carotid endarterectomy without angiography. *J Cardiovasc Surg (Torino)* 1982;23(6):477-82.
3. Cartier R, Cartier P, Fontaine A. Carotid endarterectomy without angiography. The reliability of Doppler ultrasonography and duplex scanning in preoperative assessment. *Can J Surg* 1993;36(5):411-6.

GUIDELINE FOR THE MANAGEMENT OF BREAST LUMPS

In the Department of Surgery at the University of Toronto we have developed, for the family practitioner, a plan for the management of breast lumps. The plan was drawn up from the opinions of a number of surgical oncologists specializing in the treatment of breast disease and breast cancer. All the specialists practise in one of the University's teaching hospitals.

This guideline is being used in the structure of continuing medical education workshops designed to teach family physicians the skill of breast cyst aspiration. It should be of interest to all general surgeons who might be involved in helping family physicians ac-