Letters to the Editor

Letters to the Editor will be published, if suitable, and as space permits. They should not exceed 1,000 words (typed, double space) in length, and may be subject to editing or abridgment.

Need for CA Doppler Exam Following Endarterectomy

To the Editor:

We are interested in the article: "Ineffectiveness of the Doppler Ophthalmic Test (DOT) in Post-Endarterectomy Evaluation" by S. M. Otis et al. (Stroke 10, 396-399, 1979). We agree totally with the authors that it is not sufficient to investigate the ophthalmic artery via its terminal branches to document the success of an operation. Neither preoperatively nor postoperatively can a marked stenosis be excluded and evaluation is not helped with the additional investigation of the common carotid artery. We investigate the carotid bifurcation and the internal as well as the external carotid artery selectively, as described by Planiol and Pourcelot. Pulse curve analysis and Doppler auscultation supply, on principle, the same information as flow imaging (e.g., DOPSCAN). Re-occlusions and also stenoses, which, for example, can be caused by intimal flaps, can be demonstrated early. We recently began using an intraoperative direct carotid investigation with a sterile probe.

Another result of the work by Otis et al. seems questionable. From 15 patients with preoperative abnormal results 6 were found to have a postoperative persistence of the reversed flow in the supratrochlear artery. The authors suggest a persistence of collaterals as the cause despite both normal intraoperative angiogram and postoperative Doppler flow imaging.

We have found in 114 postoperative follow-up investigations which were done on the day of the operation, one week, one month and 6 months later, only one persisting reversed ophthalmic flow in a patient with an early reocclusion of the operated artery. With a normally patent internal carotid artery, always immediately postoperatively, a physiological flow direction in the terminal branches of the ophthalmic artery was found. Changes of pulse curve amplitudes, however, occurred often but gave less evidence. Our opinion is that a postoperatively persisting reversed ophthalmic artery flow must be a sign of re-stenosis or re-occlusion. This is supported by our intraoperative continuous recordings of the supratrochlear and/or supraorbital flow in 49 patients. Any manipulation of the carotid artery, be it clamping, the insertion of an intraluminal shunt or the re-opening of the clamped artery, leads to a sudden change of the flow conditions in the branches of the ophthalmic artery. Very seldom does there occur in a non-stenotic internal carotid artery a reversed periorbital flow, which is probably caused by congenitally abnormal circulation or obstructions in the ophthalmic artery itself. These few instances, however, cannot be the reason for so high a percentage with postoperative reversed ophthalmic flow.

We could not find information in the paper of Otis et al. about the results of the intraoperative angiograms demonstrating the ophthalmic artery. A possible explanation for the different results between their study and ours might be that we primarily investigate the supratrochlear artery which is always found in the medial eye angle and which is also a terminal branch of the ophthalmic artery. For determination of the diagnosis of a reversed flow we investigate the supratrochlear as well as the supraorbital artery, as the compression tests with one or the other artery can yield more definite results. We are surprised that this and other papers from North America contain no references to European reports even when they were published in English.

For the postoperative early diagnosis of re-stenoses the investigation of the terminal branches of the ophthalmic artery is not sufficient and, up to now, with a normally patent carotid artery, we have never seen persistence of reversed ophthalmic artery flow.

G. M. von Reutern, M.D. University of Freiburg Department of Neurology Hansastr. 9 7800 Freiburg i. Br., West Germany

J. Gonzales, M.D. Department of Cardiovascular Surgery Hugstetterstr. 55 7800 Freiburg i. Br., West Germany

References

Need for CA Doppler exam following endarterectomy.
G M von Reutern and J Gonzales

Stroke. 1980;11:217
doi: 10.1161/01.STR.11.2.217

Stroke is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
Copyright © 1980 American Heart Association, Inc. All rights reserved.
Print ISSN: 0039-2499. Online ISSN: 1524-4628

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://stroke.ahajournals.org/content/11/2/217.citation

Permissions: Requests for permissions to reproduce figures, tables, or portions of articles originally published in Stroke can be obtained via RightsLink, a service of the Copyright Clearance Center, not the Editorial Office. Once the online version of the published article for which permission is being requested is located, click Request Permissions in the middle column of the Web page under Services. Further information about this process is available in the Permissions and Rights Question and Answer document.

Reprints: Information about reprints can be found online at:
http://www.lww.com/reprints

Subscriptions: Information about subscribing to Stroke is online at:
http://stroke.ahajournals.org//subscriptions/