A New Sign of Occlusion of the Origin of the Internal Carotid Artery

CLARK H. MILLIKAN, M.D.

SUMMARY When the origin of the internal carotid artery is occluded, the transmission of cardiac sounds along the carotid stops at the site of occlusion. This is a new neurovascular sign which is being reported.

The cardiac sound was transmitted normally up the left carotid distribution.

The usual laboratory studies were normal. Visual field examination revealed a visual field defect corresponding to the area of infarction.

On April 27, 1973, a right retrograde brachial angiogram revealed occlusion of the right internal carotid artery in the cervical region and stenosis at the origin of the right external carotid artery. The left carotid circulation was visualized and was normal.

Auscultation is a portion of the neurovascular examination which also includes inspection, gentle palpation, ophthalmoscopy and ophthalmodynamometry. Each or all components of the neurovascular examination may be normal in the presence of clinically significant cerebrovascular disease; however, abnormalities such as certain bruits, unilateral decrease in retinal artery pressure or retinal emboli are highly suggestive of carotid atherosclerosis producing stenosis or occlusion. This new sign should be considered in the same fashion as other abnormalities of the neurovascular examination; that is, if the new sign is present, it is highly suggestive of occlusion at the common carotid arterial bifurcation but if absent, it does not exclude a morphological abnormality.

Reference


Figure 1. Right carotid occlusion with lack of transmission of the aortic heart sound.

Professor of Neurology, Mayo Medical School, Mayo Clinic, Rochester, Minnesota 55901.
Partially supported by U.S. Public Health Service Grant NBS-06663-10.
Present address: Professor of Neurology, University of Utah School of Medicine, Salt Lake City, Utah 84132.
A new sign of occlusion of the origin of the internal carotid artery.

C H Millikan

Stroke. 1976;7:546
doi: 10.1161/01.STR.7.6.546

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/7/6/546

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/