Additional defect of unknown origin noted in cerebral angiographic study.

A A Chambers

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http://www.ajnr.org/content/3/2/148.citation

Letters

Additional Defect of Unknown Origin Noted in Cerebral Angiographic Study

In the paper by Pettersson et al. [1] concerning embolization during angiography that appeared in the July/August 1981 issue of the *AJNR*, I did not see any reference to an irregular ascending frontal branch in figures 1A or 1C (reprinted here as figures 1A and 1B). This defect was also present in the angiographic study done 10 min later. It would be of interest to know whether the authors believed the defect was the result of a primary disease or an embolus. Perhaps proximal fragmentation occurred at a middle cerebral division to produce two more distal emboli in the adjacent ascending frontal branches.

This observation emphasizes two difficulties. First, emboli frequently lodge at the bifurcation of a blood vessel, fragment, and move distally; they may or may not dissolve. Second, iatrogenic embolization compounds the difficulties of diagnosing an underlying disease.

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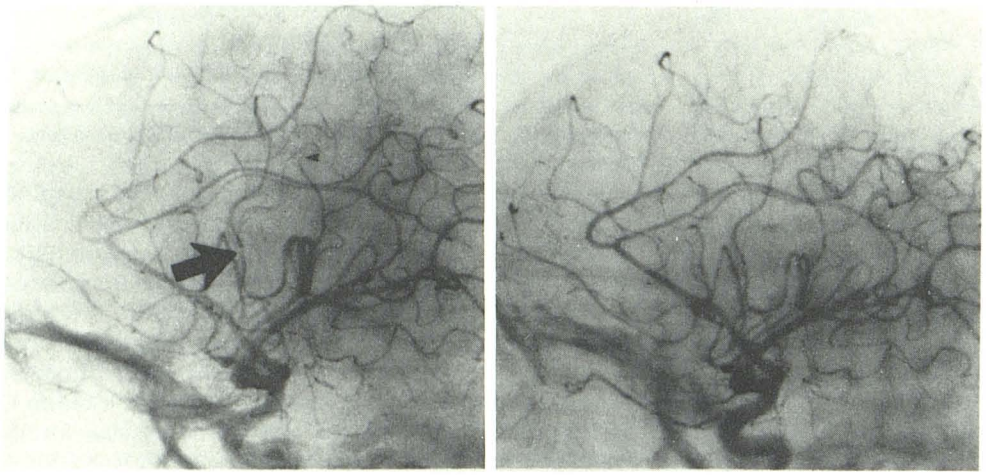
REFERENCE

1. Pettersson H, Fitz CR, Harwood-Nash DCF, Chuang S, Armstrong E. Iatrogenic embolization: complication of pediatric cerebral angiography. *AJNR* **1981**;2:357–361



A B

Fig. 1.—**A,** Emboli in ascending branches of middle cerebral artery. Embolus (*small arrow*) apparently dissolved 10 min later (**B**). Stenotic area of unknown significance (*large arrow*).

Reply

Dr. Chambers has made an excellent observation. It is quite possible that the apparent defect in one of the branches of the ascending frontal artery could be distal movement from a more proximal embolus at a bifurcation, the latter having disintegrated. Careful review of the original angiograms suggest that this indeed may be so but a number of vesels are superimposed in this region. There is no evidence of hold-up in this artery on the later films and we do not think that this is a primary disease of the artery. This could, therefore, be a small embolus insufficient to occlude the artery to a significant degree. The appearance of a small circumscribed defect in the ubiquitous acquired cerebroarterial disease in children is unusual, particularly in the absence of other lesions and in the presence of documented embolic disease.

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