Subcallosal Occlusion Following Anterior Communicating Aneurysm Treatment

Author(s):
Quentin Holay, MD; Michel Piotin, MD, PhD; Simon Escalard, MD

Corresponding Author:
Quentin Holay, qholay@gmail.com

Affiliation Information for All Authors: 1. Department of Interventional Neuroradiology

Equal Author Contribution:

Contributions:
Quentin Holay: Drafting/revision of the manuscript for content, including medical writing for content; Major role in the acquisition of data
Michel Piotin: Drafting/revision of the manuscript for content, including medical writing for content
Simon Escalard: Drafting/revision of the manuscript for content, including medical writing for content

Neurology® Published Ahead of Print articles have been peer reviewed and accepted for publication. This manuscript will be published in its final form after copyediting, page composition, and review of proofs. Errors that could affect the content may be corrected during these processes.
Figure Count:
1

Table Count:
0

Search Terms:

Acknowledgment:

Study Funding:
No targeted funding reported.

Disclosures:
The authors report no relevant disclosures.

Preprint DOI:

Received Date:
2022-05-04

Accepted Date:
2022-06-21

Handling Editor Statement:
Submitted and editor reviewed. The handling editor was Editor-in-Chief José G. Merino, MD, MPhil, FAHA, FAAN.
A 55-year-old man underwent endovascular coiling of an unruptured anterior communicating aneurysm. The coils extended over the communicating segment to completely occlude the aneurysm neck (Figure 1-A,B). The patient awoke with anterograde amnesia, without other neurological deficits. MRI revealed ischemic stroke of the anterior columns of the fornix and the genu of the corpus callosum (Figure 1-C). Retrospective reformation of the 3DSA (3D angiography reconstruction), with a wider windowing, confirmed a subcallosal artery originating from the neck of the aneurysm (Figure 1-D). Its occlusion leads to a stereotyped radio-clinical picture with a Korsakof syndrome and a stroke of the anterior pillars of the fornix\textsuperscript{1,2}.


Figure 1. Fornix ischemia following anterior communicating aneurysm occlusion

DSA before (A) and after embolization (B) showing the packing protrusion over the communicant segment (arrow). Diffusion weighted imaging (C) revealing an infarction of both columns of the fornix (arrow head). 3D reconstruction (D) of the subcallosal artery (double arrow) fusion with sagittal Flair slices demonstrating fornix edema (yellow).
Subcallosal Occlusion Following Anterior Communicating Aneurysm Treatment
Quentin Holay, Michel Piotin and Simon Escalard
Neurology published online August 2, 2022
DOI 10.1212/WNL.0000000000201067

This information is current as of August 2, 2022

Updated Information & Services
including high resolution figures, can be found at:
http://n.neurology.org/content/early/2022/08/01/WNL.0000000000201067.citation.full

Subspecialty Collections
This article, along with others on similar topics, appears in the following collection(s):
All Cerebrovascular disease/Stroke
http://n.neurology.org/cgi/collection/all_cerebrovascular_disease_stroke
Embolism
http://n.neurology.org/cgi/collection/embolism
Memory
http://n.neurology.org/cgi/collection/memory

Permissions & Licensing
Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
http://www.neurology.org/about/about_the_journal#permissions

Reprints
Information about ordering reprints can be found online:
http://n.neurology.org/subscribers/advertise

Neurology ® is the official journal of the American Academy of Neurology. Published continuously since 1951, it is now a weekly with 48 issues per year. Copyright © 2022 American Academy of Neurology. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.