The Neurohospitalist
2014, Vol. 4(3) 164

DOI: 10.1177/1941874413507929
nhos.sagepub.com
SAGE

Predominant Intraventricular Hemorrhage From a Ruptured Posterior Communicating Artery Aneurysm

Kazuma Nakagawa, MD[1,2] and Sung Bae Lee, MD[1,2]

Keywords
cerebral aneurysm, intraventricular hemorrhage

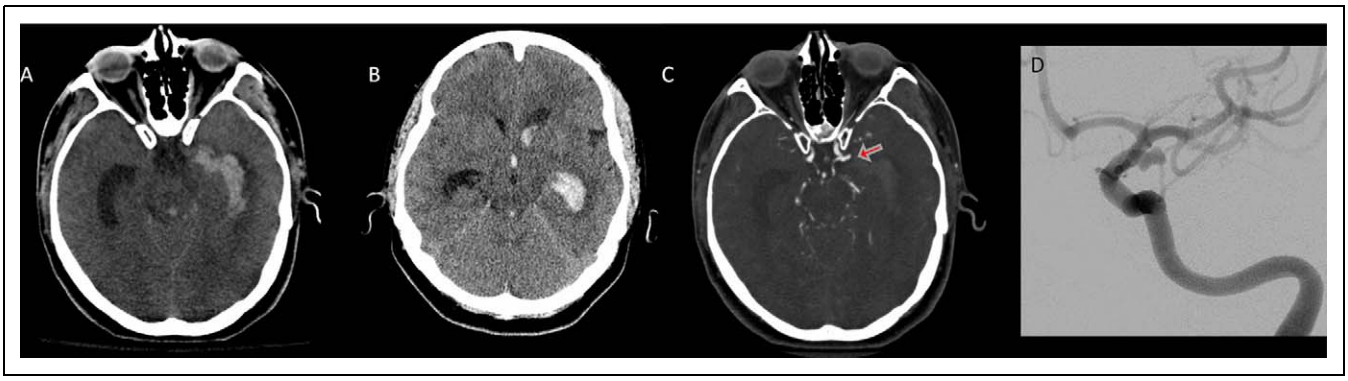

Figure 1. Laterally oriented, ruptured posterior communicating artery aneurysm causing intraventricular hemorrhage. A and B, Intraventricular hemorrhage, predominantly in the left lateral ventricle without significant subarachnoid hemorrhage. C, A computed tomography (CT) angiography revealing a laterally oriented posterior communicating artery aneurysm (arrow) as the etiology of the intraventricular hemorrhage. D, Corresponding digital subtraction cerebral angiography demonstrating the laterally oriented left posterior communicating artery aneurysm.

Case

A 45-year-old woman presented with acute onset of headache and confusion. A computed tomography (CT) of the brain showed predominant intraventricular hemorrhage (IVH) without significant subarachnoid hemorrhage (Figure 1A and B). A CT angiography showed a laterally oriented, left posterior communicating artery (PCOM) aneurysm (Figure 1C). This aneurysm, confirmed by cerebral angiography (Figure 1D), was successfully coil embolized. The ventriculostomy was placed in the right lateral ventricle to treat the obstructive hydrocephalus. The patient survived without major neurological deficits.

Although ruptured cerebral aneurysms rarely present as isolated IVH, laterally oriented PCOM aneurysms can rupture through the medial temporal lobe, causing predominant IVH without subarachnoid hemorrhage.[1] This case highlights the importance of urgent vascular imaging for optimal IVH evaluation and management.[2]

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Dr Nakagawa was supported in part by the National Institute on Minority Health and Health Disparities of the National Institutes of Health (P20MD000173).

References

1. Prasad KS, Dambatta SS, Dervin JE. Intraventricular haemorrhage without subarachnoid haemorrhage due to a ruptured aneurysm. *BMJ Case Rep*. 2009;2009.
2. Flint AC, Roebken A, Singh V. Primary intraventricular hemorrhage: yield of diagnostic angiography and clinical outcome. *Neurocrit Care*. 2008;8(3):330-336.

[1] Neuroscience Institute, The Queen's Medical Center, Honolulu, HI, USA
[2] Department of Medicine, John A. Burns School of Medicine, University of Hawaii, Honolulu, HI, USA

Corresponding Author:
Kazuma Nakagawa, Neuroscience Institute, The Queen's Medical Center, 1301 Punchbowl Street, Honolulu, HI 96813, USA.
Email: kazuma.nakagawa@hawaii.edu