Aneurysms of the Lateral Spinal Artery

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Purpose
To describe aneurysms arising from the lateral spinal artery.

The locations of aneurysms contributing to SAH have been well characterized and are found primarily in the circle of Willis or the bifurcation points of the internal carotid or the vertebral artery. Though the spinal arteries also are in direct communication with the subarachnoid space, aneurysms of these arteries leading to SAH are rare. To date, only aneurysms of anterior spinal artery have been described. In this communication, we report two patients with aneurysms of the lateral spinal artery who presented with SAH.

Materials & Methods
Review of our neurointerventional database from 1997 to the present revealed two patients with lateral spinal artery aneurysms. The medical record, as well as the operative and radiologic findings in each case, were reviewed.

Results
In both cases, the lateral spinal arteries were involved as collateral pathways for occlusive vertebral lesions, suggesting hemodynamic stress as an etiology. Endovascular treatment was attempted in both lesions and was successful in one; open surgery with aneurysm resection was performed in the other. We review the vascular anatomy of the spinal cord as it relates to the lateral spinal artery, as well as treatment options for lateral spinal aneurysms.

Conclusion
Lateral spinal artery aneurysms are a rare cause of SAH. Both endovascular and surgical treatment options are available.