

# Anterior spinal artery aneurysm

Rupture of an isolated [spinal artery aneurysm](#) is a rare cause of [subarachnoid haemorrhage](#) (SAH) accounting for less than 1% of all cases reported in the literature<sup>1)</sup>.

Aneurysms of the anterior spinal artery are extremely rare. Unlike intracranial [saccular aneurysms](#), they do not occur at branch points, are typically [pseudoaneurysms](#), and rupture secondary to a [dissection](#)<sup>2) 3) 4) 5) 6) 7) 8) 9) 10) 11) 12) 13) 14)</sup>

---

They typically present with [subarachnoid hemorrhage](#)<sup>15)</sup>.

## Risk factors

[Polyarteritis nodosa](#)<sup>16)</sup>.

## Treatment

Clinical and radiographic improvement over time without treatment<sup>17)</sup>

[Anterior spinal artery aneurysm treatment](#), 43: Koch M, Sepp D, Prothmann S, Poppert H, Seifert CL. Systemic thrombolysis in anterior spinal artery syndrome: what has to be considered? *J Thromb Thrombolysis*. 2016 Apr;41(3):511-3. doi: 10.1007/s11239-015-1281-8. PMID: 26386968.

## Case reports

[Anterior spinal artery aneurysm case reports](#).

<sup>1)</sup>

van Gijn J, Kerr RS, Rinkel GJ. Subarachnoid haemorrhage. *Lancet*. 2007 Jan 27;369(9558):306-18. doi: 10.1016/S0140-6736(07)60153-6. PMID: 17258671.

<sup>2)</sup>

Gonzalez LF, Zabramski JM, Tabrizi P, Wallace RC, Massand MG, Spetzler RF. Spontaneous spinal subarachnoid hemorrhage secondary to spinal aneurysms: diagnosis and treatment paradigm. *Neurosurgery*. 2005;57:1127-1131.

<sup>3)</sup>

Lavoie P, Raymond J, Roy D, Guilbert F, Weill A. Selective treatment of an anterior spinal artery aneurysm with endosaccular coil therapy. Case report. *J Neurosurg Spine*. 2007;6:460-464.

<sup>4)</sup>

Romero DG, Batista AL, Gentric JC, Raymond J, Roy D, Weill A. Ruptured isolated spinal artery aneurysms report of two cases and review of the literature. *Intervent Neuroradiol*. 2014;20:774-780.

<sup>5)</sup>

Dabus G, Tosello RT, Pereira BJ, Linfante I, Piske RL. Dissecting spinal aneurysms: conservative management as a therapeutic option. *J Neurointervent Surg*. 2018;10:451-454.

<sup>6)</sup> Garcia CA, Dulcey S, Dulcey J. Ruptured aneurysm of the spinal artery of Adamkiewicz during pregnancy. *Neurology*. 1979;29:394-398.

<sup>7)</sup> Vischteh AG, Brown AP, Spetzler RF. Aneurysm of the intradural artery of Adamkiewicz treated with muslin wrapping: technical case report. *Neurosurgery*. 1997;40:207-209.

<sup>8)</sup> Berlis A, Scheufler K-M, Schmahl C, Rauer S, Götz F, Schumacher M. Solitary spinal artery aneurysms as a rare source of spinal subarachnoid hemorrhage: potential etiology and treatment strategy. *Am J Neuroradiol*. 2005;26:405-410.

<sup>9)</sup> Massand MG, Wallace RC, Gonzalez LF, Zabramski JM, Spetzler RF. Subarachnoid hemorrhage due to isolated spinal artery aneurysm in four patients. *Am J Neuroradiol*. 2005;26: 2415-2419.

<sup>10)</sup> Iihoshi S, Miyata K, Murakami T, Kaneko T, Koyanagi I. Dissection aneurysm of the radiculomedullary branch of the artery of Adamkiewicz with subarachnoid hemorrhage. *Neurol Medchirurg*. 2011;51:649-652.

<sup>11)</sup> Son S, Lee S-G, Park C-W. Solitary ruptured aneurysm of the spinal artery of Adamkiewicz with subarachnoid hemorrhage. *J Kor Neurosurg Soc*. 2013;54:50.

<sup>12)</sup> Doberstein CA, Bouley A, Silver B, Morrison JF, Jayaraman MV. Ruptured aneurysms of the intradural artery of adamkiewicz: angiographic features and treatment options. *Clin Neurol Neurosurg*. 2016;146:152-155.

<sup>13)</sup> Agarwal A, Weerakkody Y, Marshall M, Singh T. Intercostal artery pseudoaneurysm with spontaneous resolution in the setting of an artery of Adamkiewicz. *Case Rep*. 2016;2016. bcr2016012802.

<sup>14)</sup> Aguilar-Salinas P, Lima J, Brasiliense LB, Hanel RA, Sauvageau E. Ruptured aneurysm of the artery of Adamkiewicz: is conservative management the standard of treatment in the current era? *J Neurointervent Surg*. 2018;10:e22.

<sup>15)</sup> Cobb M, Griffin A, Karikari I, Gonzalez LF. Endovascular Treatment of Ruptured Enlarging Dissecting Anterior Spinal Artery Aneurysm. *World Neurosurg*. 2020 Jul;139:e658-e662. doi: 10.1016/j.wneu.2020.04.100. Epub 2020 Apr 24. PMID: 32339730.

<sup>16)</sup> Smith G, Hoh BL, Albayram MS. Anterior spinal artery aneurysm presenting with spinal subarachnoid hemorrhage in a case of polyarteritis nodosa. *Clin Imaging*. 2019 Jul-Aug;56:108-113. doi: 10.1016/j.clinimag.2019.04.008. Epub 2019 Apr 17. PMID: 31029009.

From:  
<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**



Permanent link:  
[https://neurosurgerywiki.com/wiki/doku.php?id=anterior\\_spinal\\_artery\\_aneurysm](https://neurosurgerywiki.com/wiki/doku.php?id=anterior_spinal_artery_aneurysm)

Last update: **2024/06/07 02:59**