

Antiplatelet complications

It is known that [stent-assisted coiling](#) (SAC) for ruptured [wide-neck intracranial aneurysms](#) has a good efficacy; however, there is an increased risk of perioperative hemorrhagic complications due to the need for [dual antiplatelet therapy](#) (DAPT). ¹⁾

Especially, invasive procedures like [external ventricular drainage](#) (EVD) or [ventriculoperitoneal shunt](#) (VPS), which are inevitable for patients presenting with [hydrocephalus](#), might lead to [intracerebral hemorrhages](#) (ICH) or [contusions](#) along the trajectory of the [catheters](#). However, abrupt cessation of [antiplatelets](#) should be avoided, since it might increase the risk of [thromboembolism](#), especially during the acute period after [stent](#) placement ²⁾.

Balancing the risk of stent-associated thromboembolism and perioperative hemorrhagic events is challenging. There are no evidence-based guidelines for the management of DAPT in patients who have recently undergone placement of neurovascular stent and require intracranial surgical procedures. Previous retrospective studies suggested that VPS in patients on DAPT might be associated with an increased risk of ICH; however most of the hemorrhages were asymptomatic

The effect of the loading dose of antiplatelets prior to the stent coiling procedure in an unsecured [wide necked](#) ruptured intracranial aneurysm is not known.

In the series of Lodi et al carefully selected patients, therapeutic dual antiplatelet loading prior to Stent-assisted coiling of ruptured wide necked intracranial aneurysm was not associated with increased bleeding complications. However, thromboembolic events remain the main challenge. Further study is required to confirm the safety of antiplatelet loading in stent assisted ruptured intracranial aneurysm coiling ³⁾.

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H. Roh, J. Kim, H. Bae, K. Chong, J.H. Kim, S.I. Suh, T.H. Kwon, W. Yoon, Comparison of stent-assisted and no-stent coil embolization for safety and effectiveness in the treatment of ruptured intracranial aneurysms, J. Neurosurg. (2019) 1-7

²⁾

H. Nishido, M. Pötter, B. Bartolini, S. Pistocchi, H. Redjem, R. Blanc, Analysis of complications and recurrences of aneurysm coiling with special emphasis on the stent-assisted technique, AJNR Am. J. Neuroradiol. 35 (2) (2014) 339-344

³⁾

Lodi YM, Latorre JG, El-Zammar Z, Swarnkar A, Deshaies E, Fessler RD. Stent assisted coiling of the ruptured wide necked intracranial aneurysm. J Neurointerv Surg. 2012 Jul;4(4):281-6. doi: 10.1136/neurintsurg-2011-010035. Epub 2011 Jul 18. PubMed PMID: 21990500.

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