

Periprocedural complications

Between January 2007 and December 2013, 1739 patients underwent 1764 [detachable coil embolizations](#) to treat [intracranial aneurysms](#) (637 ruptured and 1127 unruptured). Zheng et al. reviewed their records and images to evaluate the [periprocedural complications](#) and related morbidity and mortality.

61 complications occurred during coil embolization and 33 periprocedural complications occurred within 1 week. These complications were observed in 8.6% of ruptured aneurysm embolization procedures (55/637) and in 3.5% of unruptured aneurysm embolization procedures (39/1127). There were 17 (0.96%) cerebral thromboembolisms, 34 (1.93%) intraprocedural aneurysm ruptures, 8 (0.45%) coil migrations, 13 (0.74%) postprocedural aneurysmal ruptures, and 22 (1.24%) neurologic deficits or transient neurologic deficits related to embolization. 63 complications had no neurologic consequences, 3 were associated with transient neurologic morbidity, 15 resulted in persistent neurologic morbidity on discharge, and 12 resulted in death. The procedure-related neurologic morbidity and mortality rates for all 1764 procedures were 0.85% in ruptured aneurysms and 0.68% in unruptured aneurysms.

The periprocedural complication rate was higher in ruptured aneurysms than in unruptured aneurysms. The main causes of morbidity and mortality were thromboembolisms, intraprocedural aneurysm perforations, and postprocedural aneurysmal ruptures. While some periprocedural complications are inevitable, we can minimize the occurrence of such complications by advancing our skill and experience, thereby improving patient prognosis ¹⁾.

¹⁾

Zheng Y, Liu Y, Leng B, Xu F, Tian Y. Periprocedural complications associated with endovascular treatment of intracranial aneurysms in 1764 cases. J Neurointerv Surg. 2015 Jan 6. pii: neurintsurg-2014-011459. doi: 10.1136/neurintsurg-2014-011459. [Epub ahead of print] PubMed PMID: 25564539.

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