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Intraprocedural Rupture of Aneurysms: Not Necessarily a Small Problem

We read with great interest the article by van Rooij et al¹ regarding the endovascular treatment of very small aneurysms (<3 mm). The conclusion of the study that coiling of very small aneurysms is more frequently complicated by intraprocedural rupture (IPR) is consistent with previous series and is technically understandable.^{2,3} However, conflicting data do exist from the 1010 patients in the Cerebral Aneurysm Rerupture After Treatment (CARAT) study of patients presenting with subarachnoid hemorrhage.⁴ In this large multicenter study, we were surprised not to find a significant association of very small aneurysms with IPR. In fact, rates of IPR were not increased whether size was dichotomized into <3 or >3 mm or when size was evaluated as a continuous variable.

The present study also reported no increase in mortality/morbidity associated with IPR in patients treated endovascularly. This is in stark contrast with results from CARAT, in which coiled patients who experience IPR had a statistically significant 63% increase in morbidity/mortality associated with IPR.⁴ These varied results illustrate the limitations of retrospective data that has been collected to date on this important complication, and further highlight the need

for prospective studies to better understand the causes and consequences of IPR.

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