Response to Letter to the Editor

Antiplatelet Therapy and the WEB II Device

Professors Spelle and Liebig are correct to highlight the differences in antiplatelet therapy in the paper by Colla, et al¹. They recommend a regimen of ASA 100 mg/day for 3-5 days without post-procedure antiplatelet therapy unless otherwise warranted for less complex unruptured WEB cases.

This is a less intense regimen than the dual antiplatelet therapy recommended for other devices such as the Enterprise, Neuroform, or Pipeline. The recommendation is based on the expectation that the surface interface of the WEB II is no more thrombogenic than standard mass of randomly distributed embolization coils. Their recommendation follows that of Klisch et al. in the initial clinical experience with the WEB II in two patients². It is based on Professors Spelle's and Liebig's unpublished experience with 49 cases using WEB devices in similar less complex aneurysms.

For unruptured complex aneurysms, they recommend pretreatment with double antiplatelet therapy (ASA, 100 mg/day; clopidogrel, 75 mg/day). As noted, this allows for the potential use of adjunctive intraluminal devices if necessary.

Since the advent of stent treatment for intracranial aneurysms, attention to preventive therapy for procedural and post-treatment thrombosis has been increasingly necessary. This is particularly important in cases of unruptured aneurysms since preventive treatments need to be safer than the natural history of disease. Nevertheless, little consensus for the ideal antiplatelet regimen currently exists for most endovascular devices. Faught et al. recently surveyed neurointerventional surgeons on antiplatelet practices, finding considerable heterogeneity of practice³. In addition, as highlighted by Professors Spelle and Liebig, different devices likely have different propensities for formation of thrombus and emboli. Consequently, optimal regimens may well differ for differing devices. Certainly the ideal regimen would be the one with the maximal chance of preventing thrombus formation while minimizing the chance of hemorrhagic complications. If no post procedure thrombotic events occur with WEB II devices in the absence of antiplatelet therapy, this would certainly be ideal. While more peer-reviewed experience is needed with the WEB II device to confirm that post-procedure antiplatelet treatment is unnecessary, the points made by Professors Spelle and Liebig are valuable in providing initial guidance toward minimizing risks associated with the use of this new device.

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References

- 1 Colla R, Cirillo L, Princiotta C, et al. Treatment of wide-neck basilar tip aneurysms using the Web II device. *Neuroradiol J*. 2013; 26 (6): 669-677.
- 2 Klisch J, Sychra V, Strasilla C, et al. The Woven EndoBridge cerebral aneurysm embolization device (WEB II): initial clinical experience. *Neuroradiology*. 2011; 53 (8): 599-607. doi: 10.1007/s00234-011-0891-x.
- 3 Faught RW, Satti SR, Hurst RW, et al. Heterogeneous practice patterns regarding antiplatelet medications for neuroendovascular stenting in the USA: a multicenter survey. *J Neurointerv Surg*. 2014. doi: 10.1136/neurint-surg-2013-010954.