AJNR

Reply:

M. Jayaraman and H.J. Cloft

AJNR Am J Neuroradiol 2009, 30 (5) e68
doi: https://doi.org/10.3174/ajnr.A1490
http://www.ajnr.org/content/30/5/e68

***Reply*:**

We apologize for any misunderstanding of our commentary. We did not make a mistake in presenting the occlusion rates in the table. We purposefully included only the total occlusion rate in the entire population, and we noted in a footnote that some patients were undergoing additional endovascular treatments. It is quite possible that some of these patients might go on to be cured by endovascular means, but it is also possible that additional morbidity and mortality might occur. We are cautious in our interpretation and suspect that further embolization of these arteriovenous malformations (AVMs) might not result in much improvement of the overall cure rate. The footnote was purposefully used to avoid misleading the readers. We believe that the table provides the reader with a satisfactory overview of the published data.

We did not dismiss partial embolization of AVMs in general, but we did specifically state that there is not convincing evidence of benefit for partial embolization of *small* AVMs. We specifically focused our discussion on small AVMs because it is precisely the aggressive endovascular therapy of these AVMs that we wanted to bring to attention. We appreciate Katsaridis et al now telling us that their complication rate was quite low and the success rate was quite high in small AVMs. Although this may be true in their series (and their letter now makes this known), not much data are available in this regard in the literature. We realize that this is an important point. It would be enormously helpful if reports describing attempts at endovascular cure of brain AVMs would specifically comment on Spetzler Martin grades so that readers were able to compare "apples and apples." We hope that Katsaridis et al will soon collect the results of subsequent endovascular procedures in their patients and publish them in a peer-reviewed journal.

With regard to the reference of the report from van Rooij et al,[1] we wish to only point out the table in our commentary, which we believe outlines reasonably well the risks and cure rates of endovascular therapy with Onyx.

If Katsaridis et al are able to embolize small AVMs with high cure rates and low complication rates, then it would seem that a prospective trial comparing embolization with surgery or radiosurgery would be an appropriate next step to determine the optimal therapy for these challenging lesions. We could be more effective in our counseling of patients and treatments offered if studies were done that allowed careful, valid, unbiased comparison of outcomes. Patients generally want the safest, most effective treatment available, and they look to us to recommend and provide evidence-based therapy. Long-term outcome is generally of greater concern to them than whether they spend 1 day or 5 days in the hospital.

Reference

1. van Rooij WJ, Sluzewski M, Beute GN. **Brain AVM embolization with Onyx.** *AJNR Am J Neuroradiol* 2007;28:172–77

M. Jayaraman
Providence, RI
H.J. Cloft
Rochester, Minn

DOI 10.3174/ajnr.A1490