AJNR

Reply:

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AJNR Am J Neuroradiol 2012, 33 (10) E130
doi: https://doi.org/10.3174/ajnr.A3364
http://www.ajnr.org/content/33/10/E130

Reply:

We greatly appreciate the comments of Drs Falero and Piloto regarding our article "Age-Related Complications following Endovascular Treatment of Unruptured Intracranial Aneurysms." In our article, the most common complication, intravascular thrombus or embolus without substantial neurologic compromise at hospital dismissal, was considered minor. Temporary neurologic deficits were the most common major complication in our study population. In our analysis, as shown in Table 2 of the article, nonelderly and elderly patients had rates of complications that were not significantly different from each other. We did not delve into the causes of temporary neurologic deficits because there was no significant difference between elderly and nonelderly patients. It is likely that intraprocedure thrombus and embolus played a role, but not more than they do in nonelderly patients.

In addition, we noted in our article that major complications without neurologic deficits included such complications as temporary neurologic deficit, subarachnoid hemorrhage, seizures, and anemia. As stated above, these complications were listed together as major complications without neurologic deficits and showed no significant difference between elderly and nonelderly patients.

We focused on major complications, particularly with neurologic deficits. It was noted that these were significantly more common within the elderly population. These included ischemic infarctions, both nonfatal and fatal. We attributed these complications in particular to the diminished vascular reserve within the elderly population. However, as you state, diminished vascular reserve is only 1 of the contributing factors to the increased complication rate. We agree with you that elderly patients do have more tortuous vasculature and increased atherosclerosis, making them more prone to complications, particularly major complications with neurologic deficits.

Taken together, our findings should provide guidance to patients and providers regarding the nature and extent of the risk associated with endovascular aneurysm therapy in the elderly. We agree that this topic warrants further investigation and a prospective trial may be of benefit. Since 2008, we have been examining outcomes prospectively of treated and untreated aneurysms and will be presenting the results when the analysis is complete.

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