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When Dealing with Unruptured Aneurysms, What Do Low Morbidity and Mortality Mean?

After reading with interest "Endovascular Therapy of 500 Small Asymptomatic Unruptured Intracranial Aneurysms,"[1] we have some remarks to share with the authors and readers.

Oishi et al[1] included in their introduction the following comment, "Current evidence does not conclusively justify the conservative management of small asymptomatic UIA [unruptured intracranial aneurysms] "; but is there any class I or II study that supports any particular treatment in patients with UIAs? Regardless of the fact that published series on this particular issue[2] have increasing numbers of cases and even outstanding results compared with outcomes of patients with ruptured aneurysms, they lack the best available statistical design. Therefore and despite the intrinsic limitations of the International Study of Unruptured Intracranial Aneurysms,[3] this study remains as a landmark article on the natural history of intracranial aneurysms and, thus, an obligated control group.

In the article of Oishi et al,[1] most of the aneurysms (90%) were located in the anterior circulation. The authors have treated them with the following results: 20% residual aneurysms and 1% combined mortality and permanent morbidity. According to these numbers, almost 1 in 4 patients did not receive any benefit from the intervention or their conditions worsened. What would the outcome have been if observation was the chosen strategy instead? In agreement with the opinion of Molyneux[4] on this issue and relying on the reported results, can we justify any kind of intervention for an asymptomatic lesion?

Concerning the learning curve of Oishi et al,[1] the combined complete occlusion and residual neck were 67% of the first 100 treated lesions, while they were 68% in the final group. Even if there was no significant difference between these 2 variables, residual aneurysms increased from 22% to 31%, and they said, "The reasons for decreased failure seem to be related to the practitioners' technical advances and the development of the right devices. . . ." How can the authors explain this statement?

On the discussion related to the effectiveness of coiling in preventing aneurysmal SAH, the authors state, "These results suggest that endovascular therapy of UIAs, particularly that of small asymptomatic UIAs, provides sufficient protection from aneurysmal SAH in short-to-midterm periods." However, how can we accept this suggestion if they have not included an observational group that truly reflects the incidence of SAH in UIAs? Again, the controversy about the natural history of UIAs shows up and dilutes the hidden benefits that any intervention can provide.

Regardless of the above-mentioned problems, Oishi et al[1] have displayed high proficiency and remarkable technical skills in dealing with this complex group of aneurysms.

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