Incidental Intracranial Aneurysms

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This month’s issue of Neurosurgical Focus concentrates on the management of intracranial aneurysms. The authors of the lead article review risk factors for postprocedure morbidity after treatment of incidental intracranial aneurysms. The findings in this manuscript document that incidental intracranial aneurysms may be treated and result in less morbidity than noted in the International Study of Unruptured Intracranial Aneurysms (ISUIA) report. The current study reviews a single group’s experience with the management of intracranial aneurysms, taking a comprehensive team approach to the management of these lesions. Thus, it cannot easily be correlated with the ISUIA trial. The main finding of this study suggests that surgical management may involve a morbidity rate as high as reported in the ISUIA trial. The significant findings in this paper are that aneurysms greater than 13 mm in size and those with broad and calcified necks portend a greater risk for surgical morbidity.

In the past, familial predisposition toward cerebral aneurysms has always been described in patients with two or more affected family members. The second manuscript in this issue suggests that first-degree relatives of patients with aneurysms are at higher risk for harboring intracranial aneurysms. The authors analyzed 96 relatives between the ages of 20 and 70 years with three-dimensional fast–spin echo magnetic resonance imaging for the presence of intracranial aneurysms. They found that the incidence of unruptured aneurysms was greater than anticipated. Given the noninvasive means available for evaluating patients, it may be of benefit to have all relatives undergo three-dimensional magnetic resonance imaging.

The focus of the final vascular paper is on a single group’s experience using the subtemporal approach for the management of basilar bifurcation aneurysms. The authors describe their modifications and technical nuances. This is a superb technical note from a group with considerable experience.

This issue focuses on some of the finer details of intracranial aneurysm disease. The reader should gain a greater understanding of the management of patients with unruptured intracranial aneurysms and their first-degree relatives. Moreover, the technical surgical approach for basilar bifurcation aneurysms is superbly reviewed.