招待講演

Treatment of Posterior Circulation Aneurysms Including Giant Basilar Aneurysms

Division of Neurological Surgery, Northwestern University Medical School
H. Hunt Batjer, M.D.

Treating posterior circulation aneurysms, particularly lesions of the distal basilar artery, remains as a major challenge to the cerebrovascular surgeon. Posterior circulation aneurysms range in severity from the small and relatively simple to the massive giant aneurysm with major brainstem distortion. This presentation will focus on the upper basilar artery, as most lesions in the proximal vertebral-basilar system are analogous to those in the anterior circulation.

After years of trial and error, a microsurgical approach to the upper basilar artery that may be termed the "extended lateral approach" has emerged as perhaps the safest and most efficient route with which to deal with the overwhelming majority of upper basilar aneurysms. When performed from the surgeon's dominant side, the resultant exposure provides all of the benefits of the subtemporal operation as well as the assets of the transsylvian exposure. This exposure, coupled with scalp and bony modifications when necessary, as well as the aggressive use of temporary arterial occlusion, provides a straightforward solution to most aneurysms in this area.

Giant basilar artery aneurysms carry a major toll, both through their natural history and operative complications. Temporary arterial occlusion is a constant component of open surgical treatment, but limitations emerge with excessively lengthy arterial occlusion. Endovascular techniques pose a relatively straightforward and potentially safer alternative for the patient at the time of the initial procedure. Fundamental problems with this approach, however, and early data suggesting an extremely high incidence of incomplete treatment and early aneurysm recurrence limit the applicability of these techniques. In the author's opinion, careful preoperative evaluation followed by a well thought out open surgical strategy represent the patient's best interest at the present time. Despite multidisciplinary approach to these lesions, our results over the past several years with giant posterior circulation aneurysms have been somewhat disappointing, with only 50% of the patients achieving a good outcome.