

Aneurysms

Aneurysms are balloon-like bulges in cerebral vessels which can lead to cerebral hemorrhage, e.g. subarachnoid hemorrhage. The patient is suddenly struck by a headache more excruciating than anything he or she has previously experienced. This condition should always be viewed as life-threatening. In some cases it leads to loss of consciousness or even death within the first several hours. In patients with a hemorrhaged aneurysm, the primary goal must be to eliminate the aneurysm.

Whereas only 20 years ago the only option was surgical clipping of the aneurysm with a metal clip inserted during the operation, today neuroradiologists can in many cases fill out the aneurysm from the inside with platinum coils introduced by catheter. The decision of whether to take a surgical or a neuroradiological approach is made in close cooperation with the neuroradiologists.

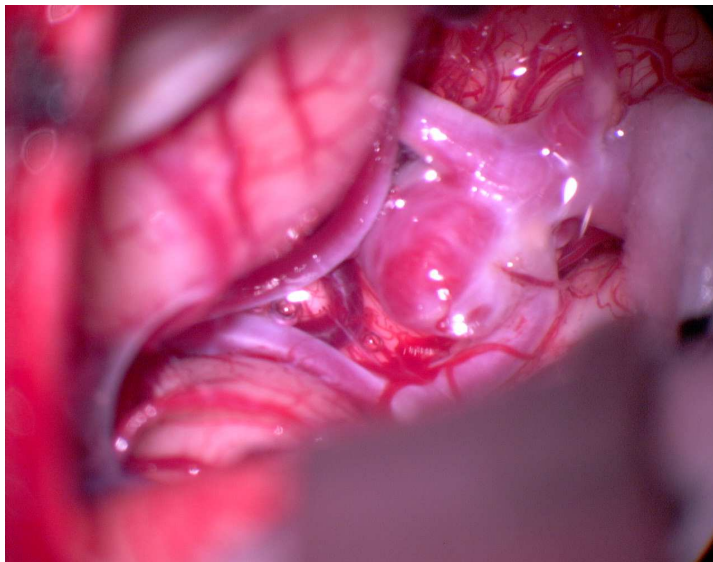


Fig.: An "innocent," i.e. non-hemorrhaged, media aneurysm.

However, there are numerous aneurysms that cannot be treated by coiling, e.g. aneurysms that have caused a space-occupying intracerebral hemorrhage. In this cases the hemorrhage is removed and the aneurysm is clipped directly during the procedure. In other cases the aneurysm exerts direct pressure on cranial nerves, e.g. the optic nerve. In this case the space-occupying aneurysm must be eliminated; it is often easier to achieve this with clipping. If cerebral infarction or increasing brain swelling occur after subarachnoid hemorrhage, a decompressive hemicranectomy may be indicated in exceptional cases.

In other cases, where the hemorrhage has caused impaired drainage of CSF, the neurosurgeon can help out by diverting cerebrospinal fluid to the outside. This is carried out with the "Duisburg needle" in a procedure developed and patented by Prof. Dr. Hassler.