Wide-Necked Basilar tip Aneurysm

Basilar tip aneurysms account for 7-8% of all intracranial aneurysms [1) 2) 3)]. They carry a higher risk of rupture than aneurysms in other locations and are frequently wide-necked.

While the frequency of direct surgery for basilar tip aneurysms is decreasing, the need for safe and effective surgical treatments for difficult-to-treat aneurysms, including large or wide-necked aneurysms, is likely to continue. Kikkawa and Kurita published the approach for large wide-necked basilar tip aneurysms using the orbitozygomatic approach, the anterior temporal approach, and hybrid surgery. [4)].

Case reports

A 45-year-old female patient who presented sudden mental confusion characterized by disorientation in time, space, and person. Investigative acute cerebral magnetic resonance imaging revealed diffusion restriction in the left posterior cerebral and superior cerebellar arteries. The clinical and cardiologic investigations revealed no abnormalities, but computed tomographic angiography and digital arteriography revealed a low-riding basilar bifurcation aneurysm and a very small aneurysm in the right internal carotid artery. The wide neck precluded coil embolization, and the appropriate stent was not covered by our public health insurance. Considering the young age, surgical treatment was proposed. Microsurgical clipping was performed using the right pre-temporal approach. In this two-dimensional video, we show the steps to reach the low-riding basilar bifurcation aneurysm neck. The positioning, transzygomatic pterional craniotomy, intradural anterior clinoidectomy, and posterior cavernous sinus opening are shown, and the surrounding anatomy is illustrated [5)].

Wainberg et al., present the case of a 45-year-old female patient who presented sudden mental confusion characterized by disorientation in time, space, and person. Investigative acute cerebral magnetic resonance imaging revealed diffusion restriction in the left posterior cerebral and superior cerebellar arteries. The clinical and cardiologic investigations revealed no abnormalities, but computed tomographic angiography and digital arteriography revealed a low-riding basilar bifurcation aneurysm and a very small aneurysm in the right internal carotid artery. The wide neck precluded coil embolization, and the appropriate stent was not covered by our public health insurance. Considering the young age, surgical treatment was proposed. Microsurgical clipping was performed using the right pre-temporal approach. In a two-dimensional video, they show the steps to reach the low-riding basilar bifurcation aneurysm neck. The positioning, transzygomatic pterional craniotomy, intradural anterior clinoidectomy, and posterior cavernous sinus opening are shown, and the surrounding anatomy is illustrated [6)].

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