

Cerebral aneurysm surgery: Establishing and popularizing newer safety aspects

The operation of aneurysm is one of the most difficult surgeries in nowadays.

In the case of SAH, vasospasm was the most important complication. In 1978 we described the paper about the relation between the volume of SAH in the basal cistern which was revealed on CT.

At that time aneurysm must be dissected and finally it was clipped with a clip.

However it will rupture easily. Then I described using tentative clipping method and dome coagulation technique which makes the surgery safe and easy especially in the case of ruptured aneurysms.

The more popular brain checking system (so called brain Doc) becomes, the more incidental diseases are found, especially unruptured aneurysms.

The incidental aneurysm has wide neck, different thickness of the wall in many cases.

The orifice of the incidental aneurysm sometime involves more than half circle of the parent artery. If the aneurysm was clipped at the border line of the neck, the parent artery becomes stenotic. Therefore in the case of wide neck aneurysm, arterial reconstruction should be done using multiclips(multi clipping method).It is impossible to clip the aneurysm parallel to the parent artery in the case of a wide neck and multi lobulated aneurysm.

In these cases multiclipping method is useful to clip perpendicular to the parent artery.

Further more you make the image before the surgery. The first clip applies on the part of aneurysm, followed by the second clip to reconstruct the artery.

In the case of incidental aneurysm, it is not the clipping of the aneurysm, but reconstructing the parent artery using clips.

We also developed new instrument for example, Sano's multi joint clip holder. Sano nonblind, non-scissoring puretitanium clip, Jet irrigation bipolar system, skull base instrument for example anterior clinoid punch, Needle arachnoid knife dissecting arachnoid scissors.

These instruments that we have developed through the surgery for years make the operations safe, clear and easier for the patients.

We have this important mission to convey the ideas to the next generations as the chairman of cerebrovascular diseases and therapy committee of WFNS elected.