Brainstem cavernous malformation surgery timing

Considering surgical timing, anywhere between 4 and 6 weeks or the subacute phase of the hemorrhage is considered appropriate. The aims of surgical intervention must be to improve preoperative function, minimize surgical morbidity and to reduce hemorrhagic rates [1].

Although BSCM surgery is associated with significant perioperative morbidity and mortality, favorable long-term hemorrhage rates and symptom resolution can be achieved in a carefully selected group of patients. Overall, patients treated acutely, within 6 weeks, benefited the most from surgical intervention [2]

In agreement with other authors [3] [4] Sandalcioglu et al. performed surgery in the subacute stage with a delay of several days or weeks after the haemorrhage, when the patient is in a stable condition. Additionally, in the subacute stage MR imaging allows better differentiation between the haematoma and the vascular malformation itself. Knowing the exact location of the cavernous malformation within the bleeding cavity is valuable for planning the surgical approach [5].

The timing of the Brainstem cavernous malformation surgery should consider the symptoms, and nuclear signs, as well as the presence of acute symptoms [6] [7] [8] [9] [10] [11] [12] [13] [14] [15].

Extension and volume of hematoma are factors that should be considered before a surgery is indicated [16].

If applied in a multidisciplinary neurosurgical center, microsurgery and radiosurgery are complementary treatment options that both result in reduced bleeding rates and improvement of clinical outcome [17].

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