Spinal cord hemangioblastoma treatment

Although radiosurgery has been used to treat multiple hemangioblastoma, particularly in the cerebellum, complete microsurgical removal is the treatment of choice for spinal cord hemangioblastoma ¹⁾.

Partial resection or biopsy may cause postoperative bleeding and should therefore not be performed. Bleeding during dissection, due to the vascularity of HBs, increases the risk of adverse events.

A minimally invasive approach for the resection of selected spinal hemangioblastomas is safe and allows complete tumor resection with good clinical results in experienced hands ²⁾.

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They are almost always associated with a syrinx or significant edema.

Cases associated with edema and syrinx are more space-occupying than those only with solid part of the tumor. Consequently, the mass effect producing neurological symptoms derives from the cyst rather than the tumor itself. On the removal of hemangioblastomas in association with a syrinx, the syrinx is spontaneously opened and always stops growing and usually regresses in size. Thus, the additional opening of the syrinx or surgical removal of the syrinx is not necessary ³⁾.

Preceding Embolization

Although some investigators recommend preoperative embolization, ^{4) 5)} in the series of Harati et al. it was usually not necessary to achieve complete resection ⁶⁾. This is in concordance to several other series so that preoperative embolization is generally not recommended ^{7) 8) 9) 10) 11)}. To prevent intraoperative bleeding in selected cases, temporary artery occlusion was performed. This technique is described in detail by Clark et al. ¹²⁾.

Indocyanine green videoangiography for spinal cord hemangioblastoma

see Indocyanine green videoangiography for spinal cord hemangioblastoma

Radiosurgery

Cyberknife radiosurgery has proven to be safe in the treatment of spinal HBs ¹³⁾. However, as radiographic regression was achieved in only 22%, microsurgical resection remains the gold standard for spinal HBs that are clearly symptomatic or have developed radiographic progression in size, spinal

cord edema, or syrinx 14) 15) 16)

References

1)

Samii M, Klekamp J. Surgical results of 100 intramedullary tumors in relation to accompanying syringomyelia. Neurosurgery. 1994 Nov;35(5):865-73; discussion 873. PubMed PMID: 7838335.

Krüger MT, Steiert C, Gläsker S, Klingler JH. Minimally invasive resection of spinal hemangioblastoma: feasibility and clinical results in a series of 18 patients. J Neurosurg Spine. 2019 Aug 9:1-10. doi: 10.3171/2019.5.SPINE1975. [Epub ahead of print] PubMed PMID: 31398701.

Na JH, Kim HS, Eoh W, Kim JH, Kim JS, Kim ES. Spinal cord hemangioblastoma: diagnosis and clinical outcome after surgical treatment. J Korean Neurosurg Soc. 2007 Dec;42(6):436-40. doi: 10.3340/jkns.2007.42.6.436. Epub 2007 Dec 20. PubMed PMID: 19096585; PubMed Central PMCID: PMC2588179.

Montano N, Doglietto F, Pedicelli A, Albanese A, Lauretti L, Pallini R. Embolization of hemangioblastomas. J Neurosurg. 2008. 108: 1063-4

Yang Y, Wang D, Jiang H, Sha C, Yuan Q, Liu J. [Treatment of spinal cord hemangioblastoma by microoperations combined with embolization]. Zhonghua Yi Xue Za Zhi. 2008. 88: 1309-12

Harati A, Satopää J, Mahler L, Billon-Grand R, Elsharkawy A, Niemelä M, Hernesniemi J. Early microsurgical treatment for spinal hemangioblastomas improves outcome in patients with von Hippel-Lindau disease. Surg Neurol Int. 2012;3:6. doi: 10.4103/2152-7806.92170. Epub 2012 Jan 21. PubMed PMID: 22347675: PubMed Central PMCID: PMC3279991.

Cornelius JF, Saint-Maurice JP, Bresson D, George B, Houdart E. Hemorrhage after particle embolization of hemangioblastomas: Comparison of outcomes in spinal and cerebellar lesions. J Neurosurg. 2007. 106: 994-8

Mandigo CE, Ogden AT, Angevine PD, McCormick PC. Operative management of spinal hemangioblastoma. Neurosurgery. 2009. 65: 1166-77

Mehta GU, Asthagiri AR, Bakhtian KD, Auh S, Oldfield EH, Lonser RR. Functional outcome after resection of spinal cord hemangioblastomas associated with von Hippel-Lindau disease. J Neurosurg Spine. 2010. 12: 233-42

Oppenlander ME, Spetzler RF. Advances in spinal hemangioblastoma surgery. World Neurosurg. 2010. 74: 116-7

Pietilä TA, Stendel R, Schilling A, Krznaric I, Brock M. Surgical treatment of spinal hemangioblastomas. Acta Neurochir (Wien). 2000. 142: 879-86

Clark AJ, Lu DC, Richardson RM, Tihan T, Parsa AT, Chou D. Surgical technique of temporary arterial occlusion in the operative management of spinal hemangioblastomas. World Neurosurg. 2010. 74: 200-5

13)

11)

Moss JM, Choi CY, Adler JR, Soltys SG, Gibbs IC, Chang SD. Stereotactic radiosurgical treatment of cranial and spinal hemangioblastomas. Neurosurgery. 2009. 65: 79-85

14)

Ammerman JM, Lonser RR, Dambrosia J, Butman JA, Oldfield EH. Long-term natural history of hemangioblastomas in patients with von Hippel-Lindau disease: Implications for treatment. J Neurosurg. 2006. 105: 248-55

15)

Conway JE, Chou D, Clatterbuck RE, Brem H, Long DM, Rigamonti D. Hemangioblastomas of the central nervous system in von Hippel-Lindau syndrome and sporadic disease. Neurosurgery. 2001. 48: 55-62

16)

Samii M, Klekamp J. Surgical results of 100 intramedullary tumors in relation to accompanying syringomyelia. Neurosurgery. 1994. 35: 865-73

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