

# Spinal hemangiopericytoma

Till 2017 , only around 80 cases of spinal hemangiopericytoma have been reported and more commonly they present as intradural-extramedullary tumours <sup>1)</sup>.

Between 2004 and 2013, five patients underwent surgery for spinal hemangiopericytoma. Histopathological data were reviewed in all cases and clinical and follow-up details were collected from the data available in our department.

There were three males and two females, including one pediatric patient. Three patients had dorsal spine involvement and two patients had involvement of cervical spine. There were two patients with intradural extramedullary tumors, one patient each with pure intramedullary tumor, pure extradural tumor and both intra and extradural tumor. All of them presented with motor weakness. Gross total resection of the tumor was done in three patients. Four patients received post-operative radiotherapy. Histopathology showed anaplastic tumor in four cases with high MIB-1 LI. Most of them were positive for CD34, mic-2 and bcl-2. Three patients who underwent gross total resection improved significantly in the follow-up period. Two patients who underwent subtotal resection expired due to spread of their disease.

Spinal hemangiopericytoma is a rare tumor. Strong clinical suspicion is required to diagnose it pre-operatively. Gross total resection is the goal and radiotherapy should be given in case of residual tumor or high-grade tumors <sup>2)</sup>.

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report a rare case of a 63-year-old Chinese male who presented with primary intradural extramedullary HPC of the thoracic spine. The main presenting complaint was gradual progression of back pain, associated with paraparesis and sensory deficit of lower limbs. He had MRI thoracolumbar with contrast which showed T9 lesion compressing on spinal cord and oedema, he was then operated upon and histopathology report confirmed a thoracic spine HPC. A T8/9 laminectomy and excision of intradural extramedullary lesion was performed, tumour section was sent for frozen section study, and more tissue was sent for paraffin studies and additional immunohistochemical staining. Surgical resection is most commonly performed, radiotherapy remains debatable. In this report, we discussed another rare case of primary spinal HPC to be added into the literature <sup>3)</sup>.

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A 36-year-old woman had a left [occipital](#) lesion that was histopathologically identified as HPC. Fourteen years after resection, the tumor recurred and was treated with radiotherapy. Three years later, CT imaging showed a large mass in the liver consistent with metastatic HPC, and MRI of the cervical spine showed an extensive lesion of the C3 vertebral body. The patient underwent C3 corpectomy with en-bloc tumor removal and follow-up radiation with no local recurrence or other spinal metastasis for the following 4 years. Regardless of the subtype of spinal HPC, complete surgical removal and radiotherapy appear to be treatment of choice <sup>4)</sup>.

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A patient with an intradural hemangiopericytoma of the lumbar spine and the unusual MR angiography (MRA) and spinal angiography findings of arteriovenous shunting with spinal venous congestion. They highlighted the concordance of the unusual MRA and angiographic findings and their

relationship to combined endovascular and surgical therapy <sup>5)</sup>.

<sup>1)</sup> <sup>2)</sup>

Das A, Singh PK, Suri V, Sable MN, Sharma BS. Spinal hemangiopericytoma: an institutional experience and review of literature. *Eur Spine J*. 2015 May;24 Suppl 4:S606-13. doi: 10.1007/s00586-015-3789-1. Epub 2015 Feb 8. Review. PubMed PMID: 25662907.

<sup>3)</sup>

Chew LS, Han XJ, Tan KK, Bundele MM. Hemangiopericytoma of the thoracic spine: a case report. *J Surg Case Rep*. 2017 Jul 4;2017(7):rjx121. doi: 10.1093/jscr/rjx121. eCollection 2017 Jul. PubMed PMID: 28690777; PubMed Central PMCID: PMC5495936.

<sup>4)</sup>

Cole CD, Schmidt MH. Hemangiopericytomas of the spine: case report and review of the literature. *Rare Tumors*. 2009 Dec 28;1(2):e43. doi: 10.4081/rt.2009.e43. PubMed PMID: 21139922; PubMed Central PMCID: PMC2994457.

<sup>5)</sup>

Fitzpatrick D, Mahajan J, Lewkowitz M, Black K, Setton A, Woldenberg R. Intradural hemangiopericytoma of the lumbar spine: a rare entity. *AJNR Am J Neuroradiol*. 2009 Jan;30(1):152-4. doi: 10.3174/ajnr.A1262. Epub 2008 Sep 3. PubMed PMID: 18768724.

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