



Video Abstract

Cervical intradural intramedullary collision tumor of schwannoma and hemangioblastoma origin

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Received : 31 January 2021

Accepted : 18 March 2021

Published : 14 April 2021

DOI

10.25259/SNI_92_2021

Quick Response Code:



ABSTRACT

Background: Primary spinal tumors are rare benign lesions that represent around 2–4% of all central nervous system neoplasms.^[1,2] Intradural intramedullary tumors are predominately glial in origin and are most commonly astrocytomas or ependymomas. Intradural extramedullary tumors, on the other hand, are usually neurofibromas, schwannomas, or meningiomas.^[2] Here, we report the case of an intradural intramedullary collision tumor of schwannoma-hemangioblastoma origin.

Case Description: A 61-year-old female presented with a 2-year history of the right arm numbness, weakness, and tingling. She reported some lower extremity numbness but an otherwise normal neurological examination. She had a prior carpal tunnel release that did not alleviate her symptoms. Noncontrast MRI of the cervical spine demonstrated a holocord syrinx from C2 to C7 and spondylolisthesis from C4 to C5. MRI with contrast then displayed an enhancing nodule behind the vertebral body of C4. A standard posterior approach and subperiosteal dissection were performed. Lateral mass screws were placed at C3-C5, and the laminectomy was performed *en bloc*. Intraoperative ultrasound was used to locate the lesion, and intraoperative dorsal column mapping was used to identify the midline before performing a midline myelotomy. The arachnoid over the lesion was opened and an extracapsular dissection was performed. Hemostasis was obtained, and a watertight dural closure was performed.

Conclusion: The patient tolerated the procedure well and achieved relief from cervical myelopathy symptoms. Pathology indicated positive biomarkers for S-100, SOX10, and NSE indicating a schwannoma hemangioblastoma collision tumor. This is unusual in its nature given two benign lesions with differing underlying cell types of origin.

Keywords: Collision tumor, Hemangioblastoma, Intradural intramedullary, Schwannoma, Spinal tumor

[Video 1]-Available on:

www.surgicalneurologyint.com

Annotations^[1,2]

- 1) 0:32 – Pre-operative imaging findings.
- 2) 1:17 – Risks and benefits of procedure.
- 3) 3:01 – Operation.
- 4) 4:54 – Disease background.
- 5) 5:30 – Post-operative imaging findings.

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Declaration of patient consent

Patient's consent not required as patients identity is not disclosed or compromised.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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How to cite this article: Singh R, Kalani M. Cervical intradural intramedullary collision tumor of schwannoma and hemangioblastoma origin. *Surg Neurol Int* 2021;12:155.