Spindle cell shwannoma in thoracic spinal cord

M.D. Shin-Jae Kim

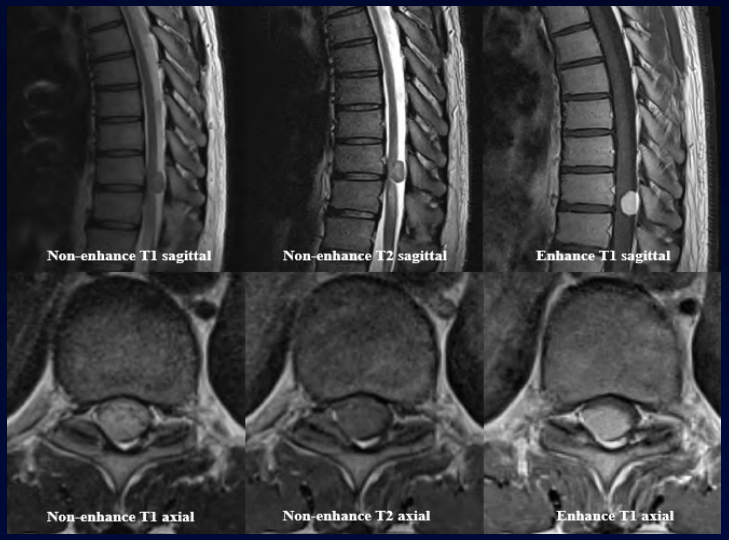
Department of Neurosurgery, Chungdam Wooridul Spine Hospital, Seoul, Korea

Introduction

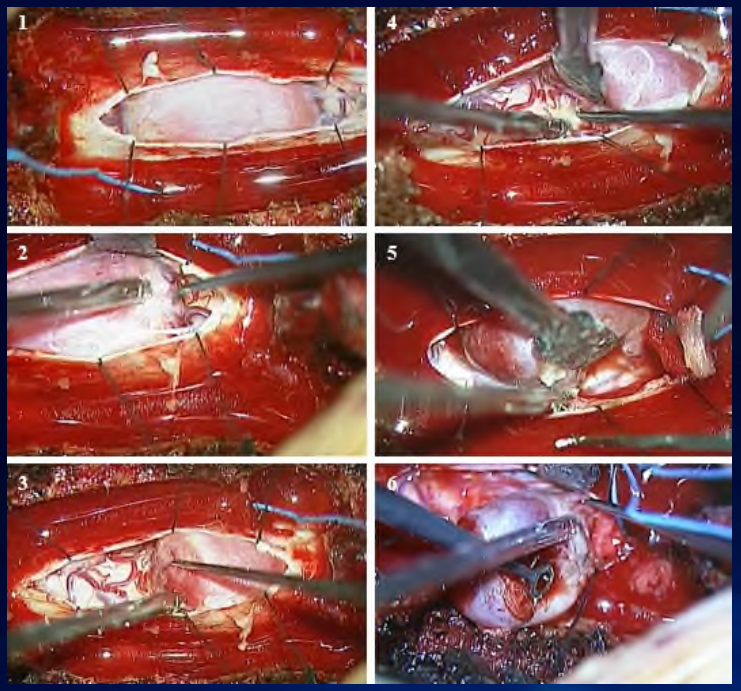
Spindle cell tumor is a tumor with a spindle-like cell on cytology and histology, which may be benign or malignant. Most of the spindle cell tumors that have been published today are associated with malignant tumor and the case rising from spinal schwannoma has not reported so far.

Case

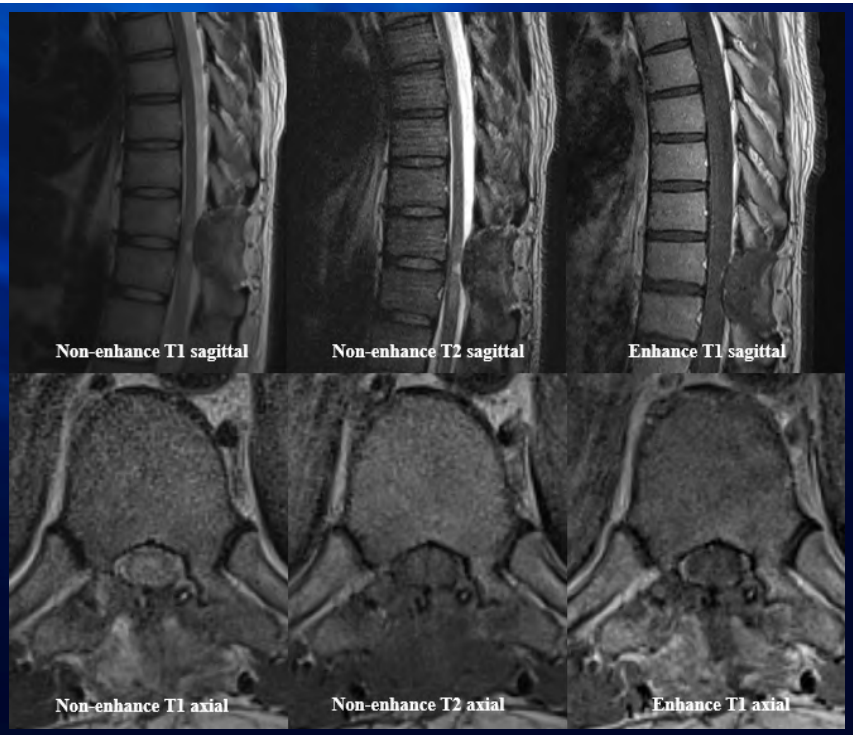
A 38-year-old man presented with low back pain, both lower extremity tingling sensation and gait disturbance with disequilibrium. Symptoms began two years ago, and it was getting worse a few days ago. Magnetic resonance imaging (MRI) demonstrated a 17x11x9 mm intradural-extramedullary (IDEM) tumor in the dorsal aspect of the thecal sac at T10-11 which was suspicious of schwannoma. Total Laminectomy at T10-11 level and tumor removal operation was performed.



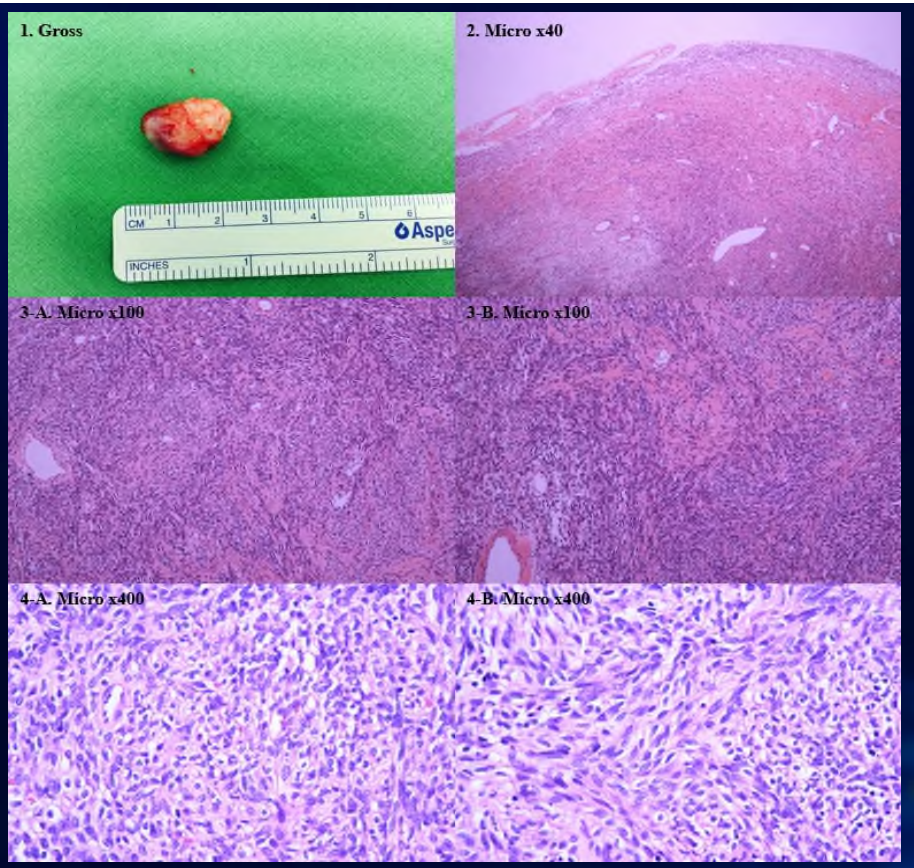
On sagittal view, the mass shows homogenous enhancement features which located in intradural-extramedullary space at T10-11 level. On axial view, well defined ovoid right posterior IDEM mass is observed.



Total laminectomy was done at T10-11. Dural incision and well-demarcated tumor mass was removed after meticulous dissection. Tumor was dissected and carefully separated from the blood vessel. Complete removal of intradural extramedullary tumor was performed without neural damage.



On sagittal view, well removal status of previous IDEM mass is observed at T10-11 level. High signal in cord is observed which is thought to be the result of compressive myelopathy. On axial view, no abnormal fluid collection is observed.



1.Gross: 17x11x9 mm solitary ovoid mass is observed.

2.Micro x40: A well circumscribed tumor with a clear border is seen in the right cellular portion and a loose edematous portion in the lower left, which is suspected schwannoma.

3.Micro x100: A more cellular appearance of spindle cell tumor was observed, and a fibrohyaline stroma was observed in the upper right part of the 3-B, which is more similar to leiomyoma.

4.Micro x400: Tumor cells show ovoid to spindle nuclei and nuclear atypia mitotic features are not seen. Cells are individual rather than adherent, fusiform, and with indistinct cell borders. The pathological diagnosis is spindle cell schwannoma.

Results

Histological examination of the lesion confirmed spindle cell schwannoma. Post-operatively, his back pain disappeared and tingling sensation resolved. And 40 days postoperatively, the patient’s gait recovered to normal.

Conclusion

Spindle cell schwannoma is a rare lesion and this case represents the first report of this type of tumor presenting in the thoracic spinal cord. In this case, tumor has not recurred for 2 years after early surgical treatment.