

Primary Spinal Intradural Tumors

Murat Sakir Eksi MD; Gulden Demirci MD; Bahattin Tanrikulu MD; Askin Seker MD; Yasar Bayri MD; Deniz Konya MD

[Institution]

Marmara University Medical School, Neurosurgery, Istanbul, TURKEY

Marmara University Neurological Sciences Institute, Istanbul, TURKEY



Learning Objectives

By the conclusion of this session, participants should be able to: 1) learn about surgical management according to tumor type 2) discuss epidemiological aspects of primary spinal intradural tumors.

Introduction

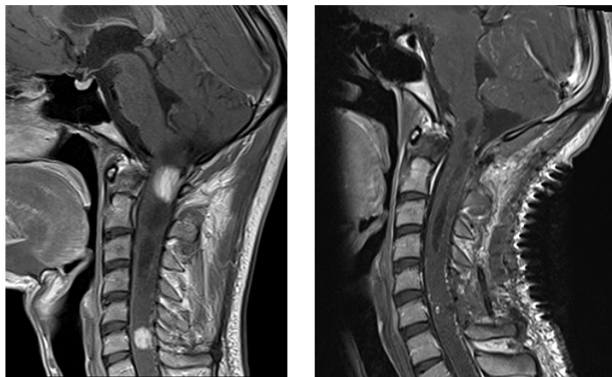
Primary tumors of the spinal cord, spinal meninges and cauda equina are rare lesions and epidemiological studies about these tumors are seldomly reported. Reported incidence rates are 0.22 per 100,000 for malignant, 0.76 per 100,000 for non-malignant primary tumors. Both malignant and non-malignant spinal pathologies cause serious burden such as paralysis, urinary and defecation problems.

Methods

Clinical, radiological and pathological information of patients operated in our clinic between January 2009 and August 2012 were retrospectively evaluated. Intraoperative imaging (magnetic resonance and/or ultrasound) and neuromonitorisation were used in the operations.

Figure 1

HEMANGIOBLASTOMA



Pre-op

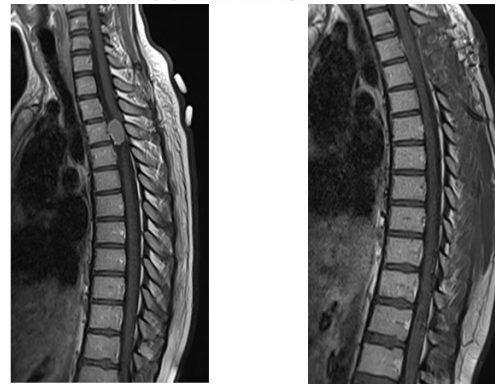
Post-op

Results

Total 74 patients were operated in our clinic. Male to female ratio was 1:1. Range of age was 10-71 years (mean: 44,44 years). Prevalance of lesion origin in descending order of frequency was thoracic (33 cases), lumbar (29 cases) and cervical (12 cases) spine. The most common presenting symptom was pain. Twenty two of the cases were containing intramedullary located lesions. The most common pathology in our series was schwannoma distributed equally in males and females which was contrary to the literature. Some neurological deficits developed in 5 patients after operation (urinary retention, neuropathic pain, loss of proprioception).

Figure 2

SCHWANNOMA



Pre-op

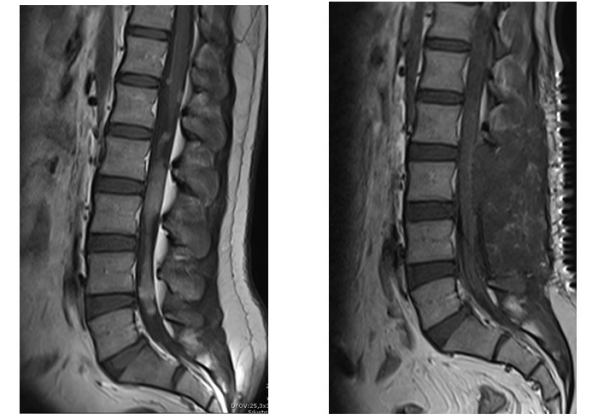
Post-op

Conclusions

Epidemiology studies are rare for primary spinal intradural tumors. These studies will give us useful information about nature of pathology and treatment approaches. Distribution of percentages in our study is different from other similar studies conducted in abroad, which will direct the surgical treatment modality differently.

Figure 3

EPENDYMOMA



Pre-op

Post-op

References

1. Chamberlain MC, Tredway TL (2011) Adult primary intradural spinal cord tumors: a review. *Curr Neurol Neurosci Rep* 11:320-328
2. Duong LM, McCarthy BJ, McLendon RE, Dolecek TA, Kruchko C, Douglas LL, Ajani UA (2012) Descriptive epidemiology of malignant and nonmalignant primary spinal cord, spinal meninges, and cauda equina tumors, United States, 2004-2007. *Cancer* 118:4220-4227