

Introduction

In establishing the management for a spinal lesion, location is the most important feature, but the tumor extension and clinical presentation are also important. The goal of treatment is complete surgical resection while preserving neurological status and also spinal stability.

Methods

Among 1334 patients with tumors of the spinal canal treated between 1994 and 2014, 313 patients with intradural tumors are presented. Most of tumors were extramedullary (59 %, n = 184) whereas 41 % (n = 129) were intramedullary. Patients underwent follow-up through outpatient visits and questionnaires with a mean follow-up of 48 ± 42 months.

Results

The common intramedullary spinal cord tumors were astrocytoma, ependymoma, and hemangioblastoma. Gross-total resection rate was higher in cervically located intramedullary tumors compared to thoracic intramedullary tumors. Tumor extension did not influence on the resection rate. Cervical intramedullary tumors showed better postoperative functional outcome than thoracic intramedullary tumors. In intramedullary tumors extending more than 3 segments postoperative worsening was significantly increased. Most common extraamedullary spinal cord tumors were schwannomas, followed by meningiomas. A minimally invasive approach (unilateral hemilaminectomy) was used to remove the tumor, while preserving spinal stability. Perioperative permanent morbidity was very low.

Conclusions

Spinal cord tumors should be surgically treated as soon as neurological symptoms appear. Patients with thoracic intramedullary tumors, and more than three segments tumors extension were at a higher risk for permanent morbidity. The minimally invasive approach allowed complete extraamedullary spinal cord tumors

Learning Objectives:

In establishing the management for a spinal lesion, location is the most important feature, but the tumor extension and clinical presentation are also important.

How will your research improve patient care?

These findings may help for decision-making process and treatment of these tumors.

