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# Spinal Anaplastic Ependymomas (AE) - Report of Eleven Surgical Cases and Literature Review

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## Introduction

Spinal AE is a rare anaplastic varient of primary spinal cord ependymoma. Our study aims to elucidate the demographics, management strategy, and clinical outcome of this extremely rare lesion.

## Methods

Retrospective review of patients with spinal AE was conducted in Beijing Tiantan Hospital from 2008-2015. All the lesions were pathologically confirmed after surgical intervention. The clinical manifestations, radiographic features, and treatment modalities of these cases were analyzed.

## Results

This series included 11 consecutive patients with spinal AE. Average age of all patients was 23±6 years(range:8-44 years), with 54.5% female. The mean preoperative course was 3 months (range:1.5-18 months). Locations of the lesions were: thoracic(n=5,45.4%), cervical(n=1,9.1%), cervicothoracic junction(n=2,18.2%), thoracolumbar (n=3,27.3%). The most common presenting symptom was weakness, followed by pain, numbness, and sphincter disorders. Gross-total resection was achieved in ten patients(90.9%), and subtotal resection in one patient(9.1%). During an average follow-up of 49±7 months(range:17-110 months), excellent outcome was achieved in three cases, four remained stable, one deteriorated, and two died. Five patients experienced recurrence after 11±3 months(range:4-39 months), and three patients received a second surgery.

## Conclusions

Spinal AE is a malignant ependymoma with short preoperative course and high rate of recurrence. Total or gross-total resection can be achieved and should be recommended. The role of adjuvant radiation therapy and chemotherapy remains to be determined in further studies.

## Learning Objectives

By the conclusion of this session, participants should be able to: 1) Describe the importance of this rare disease, 2) Discuss, in small groups, the clinical outcomes of patients with spinal AE treated in our institution, 3) Identify an effectiveness of total or gross-total resection.

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