

Introduction

Metastatic spinal tumor is a debilitating disease and a common complication of cancer. The cervicothoracic junction (CTJ) is a biomechanically and anatomically complex region that has traditionally posed problems for surgical access. In this retrospective study, we describe our clinical experiences of the treatment of metastatic spinal tumors at the CTJ and the results.

Methods

From June 2006 until December 2011, 29 patients underwent surgery for spinal tumors involving the CTJ. Patients were excluded if they had undergone surgery at same site, if there was not follow-up data, or if patients harbored hematologic malignancy, multiple myeloma, and other radiosensitive tumor. Thorough preoperative work-ups were performed. In some instances, preoperative angiography and tumor embolization were used. Surgical approaches were either anterior or posterior, and extent of resection was classified as radical, debulking, and simple neural decompression. All patients who had undergone CTJ surgery stayed at the intensive care unit. For some patients, adjuvant radiation therapy (RT) was considered.

Conclusions

Surgical procedure in CTJ is difficult, but is not impossible. We will be expecting good clinical results simply by adopting a palliative posterior surgical method with appropriate preoperative preparation and postoperative treatment.

Learning Objectives

By the conclusion of this session, participants should be able to: 1) know about unique features of metastatic cervico-thoracic junction tumor, 2) deal with this type of tumors by appropriate treatment approach.

Results

Almost all of the patients were operated on through the posterior approach (90%, 26/29) and using palliative surgical methods (82%, 24/29) including debulking surgery or simple neural decompression. In regard to hypervascular tumor, tumor embolization could help reduce blood loss during surgery. Ten instances of complication following surgery occurred in nine patients. Of the 29 patients of this study, 27 showed pain relief according to their VAS scores. Concerning the aspect of neurological recovery, mean Medical Research Council (MRC) grade was significantly improved after surgery ($p < 0.001$). In terms of pain and motor improvement, posterior approach and debulking surgery had a significant role. Median overall survival was

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