CyberKnife Stereotactic Radiosurgery for the Treatment of Symptomatic Vertebral Hemangiomas: A Single Institution Experience

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CNS 2018 ANNUAL MEETING
HOUSTON, TEXAS
OCTOBER 6-10, 2018

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Introduction

Symptomatic vertebral hemangiomas (SVH) are a very rare pathology that can present with persistent pain or neurological deficits that warrant surgical intervention. Given their relative rarity and difficulty in assessment, we sought to present a dedicated series of SVH treated by stereotactic radiosurgery (SRS) to provide insight into clinical decision-making.

Methods

A retrospective review of a single institution's experience with hypofractionated radiosurgery for SVH from 2004 to 2011 was conducted to determine the clinical and radiographic outcomes following SRS treatment. We report and analyze the treatment course of five patients with seven lesions, two of which were treated primarily by SRS.

Results

Of the five patients studied, four presented with a chief complaint of refractory pain. Three patients reported dysesthesias, and two reported upper extremity weakness. Following radiosurgery, 4/5 patients exhibited improvement of their primary symptoms, three for pain and one for weakness, achieving clinical response after a mean period of 1 year. In two cases there was 20-40% lesion reduction in size in the most radiographically responsive dimension. All treatments were well tolerated.

Conclusions

SRS for SVH is a safe and feasible treatment strategy, comparable to prior RT studies, and in select cases may successfully confer delayed, decompressive effects. Additional reporting will determine future patient selection and how conformal SRS treatment can best be administered.

Learning Objectives

By the conclusion of this session, participants should be able to: 1) Describe the outcomes of radiosurgery treatment to symptomatic vertebral hemangiomas.

References

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