Management of aggressive vertebral hemangioma with cord compression

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Abstract

Objective: Aggressive vertebral hemangiomas (VHs) causing spinal compression are rare and there is controversy regarding treatment. This study aims to evaluate clinical results of patients with aggressive VHs after laminectomy, radiotherapy and vertebroplasty with spinal fixation and to discuss treatment options of tumors.

Methods: We performed a retrospective study in 8 patients with aggressive VHs treated with laminectomy, radiotherapy and vertebroplasty with spinal fixation. In all the patients, tumor was either in thoracic or lumbar spine resulting in myelopathy with extraosseous extension. Tumors were assessed using magnetic resonance imaging (MRI) and the clinical results were evaluated.

Results: All of the tumors showed low-intensity or low to isointensity signal on T1-weighted MRI. Laminectomy with or without irradiation was performed in 5 patients. Two patients underwent vertebroplasty with spinal fixation and conventional radiotherapy was performed in 1 patient. There was no preoperative complication. The myelopathy and patients' symptoms improved after the surgery. None of the patients had a recurrence at a mean follow-up period of 48 months.

Conclusions: A combination of laminectomy, radiotherapy and vertebroplasty with spinal fixation for aggressive VHs with extraosseous extension caused spinal cord compression in all the patients. The clinical results proved satisfactorily in the long-term follow-up.