

Spinal radiosurgery ups risk of vertebral fracture

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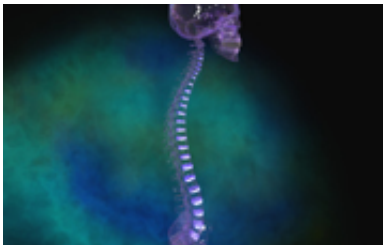


Image courtesy of Blausen Medical

(HealthDay)—Vertebral compression fracture (VCF) is a common adverse effect in patients receiving spine stereotactic body radiotherapy (SBRT), according to research published online Aug. 19 in the *Journal of Clinical Oncology*.

In an effort to assess the risk and predictive factors associated with VCF, Arjun Sahgal, M.D., of the University of Toronto, and colleagues analyzed data from 252 patients with a total of 410 spinal segments treated with SBRT.

The researchers found 57 VCFs in 410 spinal segments (14 percent), which included new fractures (47 percent) and fracture progression (53 percent). About 65 percent of the fractures occurred within the first four months, and the median time to fracture was 2.46 months (range, 0.03 to

43.01 months). Risk of VCF increased with increasing dose per fraction, with the highest risk for 24 Gy versus 20 to 23 Gy versus 19 Gy. Three of the six criteria in the Spinal Instability Neoplastic Scoring System—baseline VCF, lytic tumor, and [spinal deformity](#)—were significant predictors of VCF.

"Caution must be observed when treating with 20 Gy/fraction, in particular, for patients with lytic tumor, spinal misalignment, and a baseline VCF," the authors write. "Frequent short-term follow-up is required, as nearly two-thirds of all VCF occurred within the first four months."

Two authors disclosed [financial ties](#) to the medical technology industry.

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