

# A single radiation treatment sufficiently relieves spinal cord compression symptoms

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"Spinal cord compression is a debilitating condition that many patients with advanced cancer experience. Until now, patients often had to spend multiple days traveling back and forth to undergo radiation treatments. This study means that without compromising care, we can help patients have more time to focus on the things they enjoy instead of on the cancer," said Joshua A. Jones, MD, MA, ASCO Expert.

A common complication in people with metastatic cancer, spinal cord compression is a major detriment to quality of life. Radiation treatment is widely used to relieve pain and other symptoms, but there is no standard recommended schedule, and approaches currently vary. Findings from a phase III clinical trial show that a single [radiation](#) treatment is as effective as a full week of radiation.

The study will be featured in a press briefing today and presented at the 2017 American Society of Clinical Oncology (ASCO) Annual Meeting.

"Our findings establish single-dose radiotherapy as the standard of care for metastatic spinal canal compression, at least for patients with a short life expectancy," said lead study author Peter Hoskin, MD, FCRP, FRCR, an oncologist at the Mount Vernon Cancer Centre in Middlesex, United Kingdom. "For patients, this means fewer hospital visits and more time with family."

When cancer spreads to the bones, it most commonly affects the spine. Tumors in the spine can put pressure on the spinal canal, causing back

pain, numbness, tingling, and difficulty walking. Many patients with advanced solid tumors develop bone metastases, and up to 10 percent of all patients with cancer will have metastatic spinal cord compression.

## About the Study

The study enrolled 688 patients with metastatic prostate (44 percent), lung (18 percent), breast (11 percent), and gastrointestinal cancers (11 percent). The median age was 70 years, and 73 percent were male. The researchers randomly assigned patients to receive external beam [spinal canal](#) radiation therapy either as a single dose of 8 Gy or as 20 Gy split in five doses over five days.

The primary endpoint of the study was ambulatory status, measured on a four-point scale:

- Grade 1: Able to walk normally
- Grade 2: Able to walk with walking aid (such as cane or walker)
- Grade 3: Has difficulty walking even with walking aids
- Grade 4: Dependent on wheelchair

At study entry, 66 percent of patients had ambulatory status 1 to 2.

## Key Findings

At eight weeks, 69.5 percent of patients who received single-dose radiation therapy and 73.3 percent of those who received five doses had ambulatory status 1 to 2, showing that both shorter- and longer-course radiation treatments helped patients stay mobile. The median overall survival was similar in the two groups – 12.4 weeks with single dose vs. 13.7 weeks with five doses (the difference was not statistically significant). The proportion of patients with severe side effects was

similar in the two groups (20.6 percent vs. 20.4 percent), but mild side effects were less common in the single-dose group (51 percent vs. 56.9 percent).

Prof. Hoskin emphasized that early recognition and prompt treatment of spinal cord compression symptoms are critical to achieve best results with radiation therapy.

## Study Limitations and Next Steps

"Longer radiation may be more effective for preventing regrowth of metastases in the spine than single-dose radiation. Therefore, a longer course of radiation may still be better for patients with a longer life expectancy, but we need more research to confirm this," said Prof. Hoskin.

Patients with metastatic breast [cancer](#) were under-represented in this clinical trial, as were younger patients. For certain [patients](#) with spinal cord compression, surgery instead of or in addition to [radiation therapy](#) may be recommended.

**More information:** [am.asco.org/sites/am.asco.org/ ...  
DisclosureReport.pdf](https://www.am.asco.org/sites/am.asco.org/.../DisclosureReport.pdf)

Provided by American Society of Clinical Oncology (ASCO)

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