

First US trial of procedure to relieve pain from spinal tumors

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When metastatic cancer spreads to the spine, it can cause spinal fractures, severe pain and impaired mobility.

Loyola University Medical Center has launched the first clinical trial in the United States of a [minimally invasive treatment](#) designed to help relieve pain, heal [spinal fractures](#) and prevent new fractures.

In metastatic cancer, the most common sites the cancer spreads to are bones, and the [spine](#) is the most common site of bone metastases. A tumor can weaken a vertebra, causing it to collapse on itself.

Loyola will test a new combination treatment that delivers radiation directly to the tumor and increases support of the spine.

First, an interventional radiologist makes a small incision into the spine and inserts a spinal applicator needle to deliver radiation directly to the tumor. This is called [intraoperative radiotherapy](#). Because it is more precise than standard [external beam radiation](#), intraoperative radiotherapy can deliver a higher dose of radiation, while minimizing adverse effects to normal tissue.

The second half of the operation is a procedure called a kyphoplasty. A catheter is inserted through the incision. A balloon at the tip of the catheter is inflated to increase the height of the collapsed vertebra. A cement-like material then is injected into the radiated area to help stabilize the spine.

The purpose of the Phase 1 study is to learn about both the good and bad effects of combining intraoperative radiotherapy and kyphoplasty. Researchers will compare the pain levels and use of pain medications before and after the procedure. They also will monitor quality-of-life issues, the effect of the procedure on the tumor and any complications.

The study is titled "Combining Intraoperative Radiotherapy with Kyphoplasty for Treatment of Spinal Metastases (Kypho-IORT)". It is sponsored by the departments of Radiation Oncology and Radiology of Loyola University Chicago Stritch School of Medicine.

More information: To qualify for the trial, a patient must meet several criteria, including being 50 or older and having metastatic cancer that has spread from a solid tumor to the spine. For more information, call 708-216-2568.

Provided by Loyola University Health System

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