

Surgical technique relieves painful spine fractures in patients with metastatic cancer

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A surgical technique appears to offer quick and effective relief for debilitating spinal fractures often suffered by patients with metastatic cancer, researchers reported at the 35th Congress of the European Society for Medical Oncology (ESMO) in Milan.

Many patients with [multiple myeloma](#), or those whose [cancer](#) has spread beyond the initial tumor site, suffer compression fractures in their spine. This is partly because the spine is one of the most common sites for metastatic spread of the disease, making the vertebrae brittle and at risk for fractures. Widely-used cancer treatments such as corticoid treatment, [hormone therapy](#), [radiation therapy](#) can also have a weakening effect on bone and increase the risk for fractures in these patients.

Professor Leonard Bastian from Klinikum Leverkusen in German led an international trial testing a new technique to treat these compression fractures, called balloon kyphoplasty.

"Balloon Kyphoplasty is a minimally invasive surgical procedure to treat patients with painful [vertebral compression](#) fractures," Prof Bastian explained.

To perform the procedure, a surgeon inserts a small orthopedic balloon through a 1 cm incision into the fractured vertebra. Inflation of the balloon can restore the shape and height of the vertebrae. The balloon is then deflated and removed and a precise amount of quick-setting bone cement is injected in the vertebral body restoring the shape and strength

of the vertebrae.

At the congress, Prof Bastian reported the results of a trial including 134 patients randomly assigned to either balloon kyphoplasty (70 patients) or non-surgical management (64).

Those who had the surgery showed improvements in a questionnaire designed to measure their level of disability at one month after surgery. They also experienced a significant improvement in back pain one week after surgery, while those who received non-surgical management saw no improvement.

After one month, patients in the non-surgical arm of the study were allowed to receive balloon kyphoplasty. Thirty-eight chose to do so. All patients who underwent balloon kyphoplasty reported sustained improvements in quality of life for a year after treatment.

"Balloon kyphoplasty offers quick pain relief; restores patient activity and mobility and it gives an important improvement of quality of life," Prof Bastian said. "It may be the right treatment option for vertebral compression fractures if conventional pain medication has not been effective or has too many side-effects."

"This study demonstrates balloon kyphoplasty should be considered when painful vertebral compression fractures occur in cancer patients. It is an additional therapy which can really add to the patient's quality of life."

"The role of balloon kyphoplasty for the control of pain and disability in cancer patients is a hot topic," commented Dr Fausto Roila from Ospedale Santa Maria, Terni, Italy. "Managing the side-effects of therapies and the symptoms of cancer is an important aspect of cancer care."

The study by Prof Bastian's group adds to a growing literature on the role of kyphoplasty, Dr Roila noted. "As research into this technique continues it will be important to conduct double-blind, placebo-controlled studies to identify the place of balloon kyphoplasty in cancer care."

Provided by European Society for Medical Oncology

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