

Vertebroplasty reportedly provides better pain relief and function

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An analysis of published data in the medical literature has found that vertebroplasty can provide more pain relief and better function for patients with osteoporotic vertebral compression fractures than nonoperative treatments. Vertebroplasty, a medical procedure for reducing pain caused by this type of fracture, involves the injection of an acrylic cement into the body of the fractured vertebrae for stabilization.

According to Ming-Min Shi and colleagues from Zhejiang University in the People's Republic of China, this therapy can have similar or additional benefits over other treatments, despite conflicting results to date. Their work is published online in Springer's journal, *Clinical Orthopaedics and Related Research*.

Vertebral compression fractures are the most common type of [osteoporotic fractures](#). They can result in severe back pain, [spinal deformity](#), [muscle atrophy](#), physical decline, prolonged hospitalization, and, potentially, increased risk of premature death.

To date there have been conflicting results about whether percutaneous vertebroplasty (PVP) is as beneficial for the treatment of [vertebral compression fractures](#) as other treatments, or more effective in patients who do not improve with traditional therapy. To shed some light on this controversy, Shi and team analyzed 886 patients from nine previously published randomized trials. They sought to determine whether PVP better relieves pain, improves quality of life, and if it increases the recurrence of fractures compared to two control models: nonoperative

treatment, which included bed rest, pain relief and bracing; and a "sham" therapy in which injections were given without the acrylic cement.

Compared with nonoperative therapy they found PVP was more effective at relieving pain and improving quality of life in patients with [vertebral fractures](#). Pain relief and quality of life were comparable after PVP and sham injections, at various time points. PVP was not linked to a higher recurrence of fractures compared with the other two treatments.

The authors conclude: "Different control groups in individual studies to date may explain the varying conclusions about the ability of vertebroplasty to relieve pain and improve patients' quality of life. Indeed, some studies compare PVP to sham injections, others to non-operative therapy. Our analysis shows that, compared with other treatments, PVP relieves pain and improves quality of life as well as, or better, without increasing the risk of new fractures."

More information: Shi MM (2012). Is there really no benefit of vertebroplasty for osteoporotic vertebral fractures? A meta-analysis. *Clinical Orthopaedics and Related Research*. [DOI 10.1007/s11999-012-2404-6](#)

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