Vertebroplasty and kyphoplasty appear to be equally effective in substantially reducing pain and disability in osteoporosis patients with vertebral fractures, according to new findings from Baylor's interventional radiology department.

Currently, nearly three in four osteoporosis patients with vertebral fractures undergo kyphoplasty, a minimally-invasive technique used to repair those fractures and reduce pain and disability. However, the new study published in the Journal of NeuroInterventional Surgery indicates that the lesser-used and less-expensive vertebroplasty is just as effective.

For this study, patients with vertebral body compression fractures were randomly assigned to treatment with kyphoplasty or vertebroplasty. Primary endpoints were pain (0-10 scale) and disability assessed using the Roland-Morris Disability Questionnaire (RMDQ). Outcomes were assessed at three days, one month, six months, and one year following the procedures.

Researchers compared the results of 59 patients who received kyphoplasty (which inserts a small inflatable balloon to repair fractures) with 56 who received vertebroplasty (a similar procedure that uses bone cement instead of a balloon).

Within three days of the procedures, the researchers observed significant improvements in pain and disability amongst both patient groups. Within 12 months, results were almost equal across both techniques.

“Both procedures provided excellent pain relief and the complication rates were similarly very low,” explains Kenneth Layton, MD, MS, FAHA, director of interventional neuroradiology at Baylor University Medical Center and co-author of the paper. “Given the results of the study, patients, referring physicians and surgeons can feel confident that either procedure can effectively treat vertebral compression fractures.”

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