Fentanyl Patch

Although surgical intervention, such as percutaneous vertebroplasty (PVP), is the standard treatment for osteoporotic vertebral compression fractures (OVCFs), its effectiveness and safety are unclear. Therefore, a study of Oh et al. compared the safety and efficacy of conservative treatment with that of PVP for acute OVCFs.

Patients with single-level OVCFs who were treated conservatively with a transdermal fentanyl patch (TFP) or with PVP between March 2013 and December 2017 and followed-up for more than 1 year were retrospectively evaluated. Patients with pathologic fractures, fractures of more than two columns, or a history of PVP were excluded. Clinical outcomes (visual analog scale [VAS] scores) and radiographic factors were evaluated, including changes in the compression rate of the corresponding vertebral body at onset and after 12 months, sagittal Cobb angle at onset and after 6 and 12 months, and the incidence of adjacent compression fractures.

Of the 131 patients evaluated, 75 were treated conservatively using TFPs and 56 underwent PVP. We divided the patients into TFP and PVP groups. Their baseline characteristics (including sex, level of fracture, and bone mineral density T-scores) were similar, but the TFP group was significantly younger. The overall VAS score for pain showed a greater decrease during the first month (1 week after PVP) in the PVP group but remained similar in the two groups thereafter. The compression rate after 12 months increased in the TFP group but decreased in the PVP group. Five patients in the PVP group, but none in the TFP group, experienced adjacent compression fractures within 12 months.

They compared clinical and radiological outcomes between the TFP and PVP groups. The immediate pain reduction effect was superior in the PVP group, but the final clinical outcome was similar. Although the PVP group had a better-preserved compression rate than the TFP group for 1 year, the development of adjacent fractures was significantly higher. Although TFPs seemed to be beneficial in reducing the failure rate of conservative treatment, the possibility of side effects (22.6%, 17 out of 75 patients, in this study) should be carefully monitored [1)]

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Oh Y, Lee B, Lee S, Kim J, Park J. Percutaneous Vertebroplasty versus Conservative Treatment Using a Transdermal Fentanyl Patch for Osteoporotic Vertebral Compression Fractures. J Korean Neurosurg Soc. 2019 Sep;62(5):594-602. doi: 10.3340/jkns.2019.0086. Epub 2019 Aug 30. PubMed PMID: 31484234.