

## In Response to Office-Based Kyphoplasty: A Viable Option Using Local Anesthesia and Oral Sedation

We appreciate the interest in our research and welcome dialogue on the emergence of office-based percutaneous balloon kyphoplasty (PBK) using local anesthesia with oral sedation. We agree with the authors that patient selection is an essential factor to improve clinical outcomes of the procedure, but we interpreted the American Society of Anesthesiologists (ASA) classification differently. If a patient were to present with an osteoporotic vertebral compression fracture (VCF), reports pain, and exhibits functional limitations on physical examination and a functional battery, we would interpret this patient as ASA 3 (1). Our rationale behind this determination is that: (1) osteoporosis is a systemic disease; (2) the patient presented or reported diminished quality of life or impaired activities of daily living; and (3) the VCF is non-life-threatening. Furthermore, 2 retrospective studies reported no difference in complication rates when comparing ASA classification (2,3). Specifically, when examining the pedicle screw and PBK procedures, the pedicle screw had a higher rate of complication, but the ASA class did not affect complication rates (2). When comparing complication and noncomplication groups in an adult spinal deformity correction surgery cohort, ASA class was not significantly different between groups (3). These data suggest that ASA 2 and ASA 3 should not be the final determinants when deciding on procedure location or analgesic technique.

Patients that present to our clinic with a VCF and report mild to moderate pain, but no functional limitations, would be treated conservatively. If conservative

treatment does not resolve the pain or if the patient begins to experience functional limitations, a PBK procedure would be considered. Functional limitations in our practice are determined by the Timed Up and Go test (4), the 6-minute walk test (5), the Five-Times-Sit-to-Stand test (6), physical examination, and subjective reporting. This process allows for a more objective surgery selection, and when repeated, a comprehensive evaluation of postoperative improvement. Additionally, if there is any uncertainty about a patient's medical risk, their managing physicians must provide surgical clearance.

In future studies, with a larger office-based cohort, we would like to include ASA class as an additional independent variable.

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