To the Editor

In 2000, Yeung (1) used the YESS system (Yeung endoscopic spine system) to treat lumbar disc herniation, with an operating method using an intradiscal technique (inside-out technique); the indication for its use is contained lumbar disc herniation and far lateral herniation. To treat a prolapsed or sequestered lumbar disc, in 2006, Hoogland et al. (2) used the TESSYS system (transforaminal endoscopic spine system); the operating method was an extradiscal (outside-in) technique. With the TESSYS system, it is possible to widen the neuroforamen (foraminoplasty) in stages using special reamers. After the anterior and lateral parts of the superior articular process is reamed, access can be gained to the prolapsed or sequestered disc. In the TESSYS method, the puncturing reams the lateral and anterior parts of the superior articular process that enlarge the intervertebral foramen (foraminoplasty). However, patients with a huge herniation, or facet hypertrophy, are still difficult to treat. In our clinical practice, we found a new approach for treatment: passing the cavity of the facet approach for lumbar disc herniation. Here we present a typical case.

Our patients was a 41-year-old man with left leg radicular symptoms of roughly 4 years’ duration. Magnetic resonance imaging (MRI) revealed an L5/S1 prolapsed lumbar disc herniation (Fig. 1 A,B). No stability was found in extension and flexion lumbar radiographs. Postoperative MRI (Fig. 1 C,D) and computed tomography (CT) (Fig. 1 E,F) revealed a trajectory passing through the articular joint, and the prolapsed disc was removed. The endoscopic imaging revealed the prolapsed disc was completely removed and a good visualization of dural sac pulsation was achieved (Fig. 1 G).

The operation was generally carried out with the patient in the lateral decubitus position with the symptomatic side up. Lidocaine 1% was used as a local anesthetic. At the levels L3/4, L4/5, and L5/S1, the posterior line of the inferior articular process in the lateral fluoroscopic view generally served as the safety line in order to avoid injury to the abdominal organs. The target point was the middle of the superior edge of the caudal vertebral body on the anteroposterior (AP) view, and the upper posterior margin of the caudal vertebral body on the lateral view (Fig. 2 A,B). Linking the tip of the superior articular process and the target point served as a puncturing line (Fig. 2 A,B). The junction of the puncturing line and safety line was called the J point. The puncturing point was the J point or medial to the J point on the puncturing line. We always chose about 2 cm medial to the J point as the puncturing point. We inserted the spinal needle into the articular cavity between the superior articular...
process and inferior articular process on both the AP and lateral views (Fig. 2 C,D). The wire was inserted. The thinnest rod (green) was advanced along the wire as far as the cavity of the facet joint. Subsequently, 3 further guide tubes of increasing diameter were advanced over the guide rod to widen the soft tissue channel. The first 2 guide tubes were removed. Through the last remaining guide tube, along the thinnest rod (green), part of
references


