

## Video-Assisted Thoracoscopic Excision of Herniated Thoracic Disc: Description of Technique and Preliminary Experience in the First 29 Cases

John J. Regan, \*Ari Ben-Yishay, and †Michael J. Mack

Texas Back Institute, Plano, Texas; \*Orthopedic & Sports Medicine, Emerson, New Jersey; and †Cardio-Thoracic Surgery Associates of North Texas, Dallas, Texas, U.S.A.

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**Summary:** This study evaluates the technique and results of video-assisted thoracoscopic surgery (VATS) for the treatment of symptomatic thoracic disc herniation. Results were compared with a literature review of open surgical techniques of thoracic disc excision with regard to efficacy, safety, and surgical outcomes. VATS has recently been described for thoracic surgery as having the advantage of decreased postoperative pain and morbidity, faster patient recovery, and shortened intensive care unit (ICU) hospitalization. Twenty-nine consecutive patients underwent VATS for symptomatic thoracic disc herniation. Herniations ranging from T5-6 to T12-L1 were successfully approached by using a three- or four-portal strategy. Postoperative magnetic resonance imaging (MRI) scans were evaluated. Pre- and postoperative Oswestry Disability Questionnaires and Linear Analog Pain Scale data were obtained. Patients were grouped according to presenting symptoms. The minimal follow-up was 1 year (range, 12-24 months). Mean operative time was 175 min for 29 patients. Significant improvement ( $p < 0.01$ , paired  $t$  test) was recorded in Oswestry Disability Questionnaires and Linear Analog Scale Tests. Of the patients, 75.8% (22) were satisfied, 3.4% (one) unsatisfied, with 20.1% (six) unchanged. Narcotic use was significantly eliminated or reduced. Mean return to work was 5 weeks (private insurance) and 21 weeks (workers compensation). The surgical and postoperative complication rate was 13.8%. VATS appears to be a safe and efficacious method of excising herniated thoracic discs. Follow-up results at 1 year resulted in high patient satisfaction. VATS advantages include decreased length of hospitalization as well as improved patient comfort. **Key Words:** Thoracic spine—Thoracoscopy—VATS—Thoracic herniated disc.

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Thoracic disc herniation is an uncommon but important cause of severe, incapacitating local or radicular pain. It is seen with a variety of nonspecific symptoms leading to wrong or delayed diagnosis (15,27-29,39,41). Although incidence has been reported at one in 1,000,000 persons per year by using computed tomographic (CT) scan, two current studies using magnetic resonance imaging (MRI)

put this number at 14.5% of all disc herniations (46). Wood et al. (48) also recently reported a significant incidence of asymptomatic thoracic disc herniations by using MRI scanning. Improved methods of early detection have led to controversy about the appropriate management of this disease (4,6). Once diagnosis of clinically symptomatic thoracic disc herniation is established, a period of nonoperative management of  $\geq 6$  months is usually indicated. Surgery is warranted in patients with long-tract signs of myelopathy and in patients with intractable thoracic pain with paracentral or radicular pain on the same side as the disc herniation, failing to respond to nonsurgical management.

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Address correspondence and reprint requests to Dr. J. J. Regan, Texas Back Institute, 6300 W. Parker Road, Plano, TX 75093, U.S.A.