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Early experiences with video-assisted thoracoscopic surgery: our first 70 cases.

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Abstract

STUDY DESIGN:

Prospective consecutive series.

OBJECTIVE:

Analysis of the results and outcomes of patients treated with video-assisted thoracoscopic surgery for spinal pathology.

SUMMARY OF BACKGROUND DATA:

Video-assisted thoracoscopic surgery is an alternative to open thoracotomy. It has been suggested that the learning curve is substantial. The authors present their early experience in treating a variety of spinal pathologies with this technique.

METHODS:

Seventy cases were available at the 2-year follow-up. Video-assisted thoracoscopic surgery with the goal of anterior spinal release and fusion was carried out on patients with the following diagnoses: idiopathic scoliosis, neuromuscular spinal deformity, Scheuermann kyphosis, congenital and infantile scoliosis, neurofibromatosis, Marfan syndrome, postradiation scoliosis, and repair of pseudarthrosis. Three patients

had excision of the first rib to treat thoracic outlet syndrome. Two patients had excision of intrathoracic neurofibroma and a benign rib tumor. One had anterior fusion following thoracic spine fracture-dislocation.

RESULTS:

The average operative time for the thoracoscopic anterior release with discectomy and fusion procedure was 256 minutes (range 150-405 minutes). The average number of discs excised was 8 (range 4-11 discs). The average operative time per disc was 32.5 minutes (range 20-45 minutes). The average blood loss during the thoracoscopic anterior release with diskectomy and fusion was 285 mL (range 150-405 mL). Final postoperative scoliosis and kyphosis corrections were 68% (range 41-91%) and 90% (range 47-100%), respectively. Complications related to thoracoscopy occurred in 3 patients. All deformity patients had evidence of anterior fusion radiographically.

CONCLUSION:

Video-assisted thoracoscopic surgery provides a safe and effective alternative to open thoracotomy in the treatment of thoracic pediatric spinal deformities. The procedure remains time consuming.