Clin Orthop Relat Res. 2005 May;(434):61-70.

Video-assisted thoracoscopic surgery: the Cincinnati experience.

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Abstract

Video-assisted thoracoscopic surgery is an alternative to open thoracotomy. We analyzed our experience during a consecutive series of 100 patients who had this procedure and who were available for study at 3-year followup. Video-assisted thoracoscopic surgery was done on patients with the following diagnoses: idiopathic scoliosis (n = 49), neuromuscular spinal deformity (n = 15), Scheuermann kyphosis (n = 15), congenital and infantile scoliosis (n = 5), neurofibromatosis (n = 5), Marfan (n = 1), postradiation scoliosis (n = 1), and repair of pseudoarthrosis (n = 1). Four patients had excision of the first rib to treat thoracic outlet syndrome. One patient had excision of an intrathoracic neurofibroma and one a benign rib tumor. One had anterior arthrodesis after fracture-dislocation of the thoracic spine and another had anterior fusion for vertebral osteomyelitis. The average operative time for the thoracoscopic anterior release with discectomy and arthrodesis was 253 minutes. The average number of discs excised was 8. Final postoperative scoliosis and kyphosis corrections were 68% and 90%, respectively. Complications related to thoracoscopy occurred in eight patients. Video-assisted thoracoscopic surgery provides a safe and effective alternative to open thoracotomy in the treatment of thoracic pediatric spinal deformities.