Abstract

Background: Thoracoscopic surgery has become very popular in recent years. Conventional thoracoscopic surgery requires three or more port wounds for manipulations of endoscopic instruments. For complicated cancer surgery, more port wounds and a larger thoracotomy wound may be required due to technical reasons. We want to investigate the effectiveness of singleport thoracoscopic approach in elective thoracoscopic surgery for thoracic disease. Materials and methods: From July 1st, 2010 to March 31, 2011, 90 consecutive patients underwent general thoracoscopic surgery performed by the same thoracic surgeon. Two patients with severe trauma and massive bleeding were excluded from the study. All patients included had thoracoscopic surgery with a single-port approach. The surgical outcomes, complications, mortality and conversion rates were recorded and analyzed. Results: A total of 88 patients were included in this study. All these patients were operated on by the same surgeon. For sixty-eight patients, the single-port thoracoscopic approach was used. Nineteen patients were changed to a two-port thoracoscopic approach and one patient's was changed to mini-thoracotomy. Two patients died from terminal lung cancer and severe mitral regurgitation. Complications occurred in six cases. Eighty-seven patients (98.8%) were effectively managed with either single-port or a two-port approach. Only one patient was managed by mini-thoracotomy. Conclusion: Elective thoracoscopic surgery performed through a single-port wound is feasible. Single-incisional thoracoscopic surgery can be safely applied as a first-line approach in most cases of elective thoracoscopic procedures.

Keywords