A propensity matched comparison of effects between video assisted thoracoscopic single-port, two-port and three-port pulmonary resection on lung cancer

Mu Ju Wei
National Cancer Center, China

Data of consecutive 1553 patients who underwent video assisted thoracoscopic surgical (VATS) pulmonary resection for lung cancer in the Department of Thoracic Surgery of Cancer Hospital of CAMS and PUMC between November 2014 and January 2016 were prospectively collected and analyzed. There were 716 males and 837 females. The mean age was 58.90 years (25 to 82 years) and the conversion rate was 2.7% (42/1553) in this cohort. After propensity score matching, there were 207 patients in single-port and two-port group, and 680 patients in three-port group. Propensity-matched analysis demonstrated that there were no significant differences in duration of operation (129 versus 131 minutes, P=0.689), intra-operative blood loss (63 versus 70 mL, P=0.175), number of dissected lymph nodes (12 versus 13, P=0.074), total hospital expense ($9928 versus $9956, P=0.884) and cost of operation ($536 versus $535, P=0.879) between VATS single-port, two-port and conventional three-port pulmonary resection groups. There was no significant difference in the complication rate between two groups (5.3% versus 4.7%, P=0.220). However, compared with three-port group, patients who underwent single port and two-port experienced shorter postoperative length of stay (6.24 versus 5.61 d, P=0.033), shorter duration of chest tube (4.92 versus 4.25 d, P=0.008), and decreased volume of drainage (926 versus 791 d, P=0.003). We concluded that the short term outcomes between VATS single-port, two-port and conventional three-port groups for the surgical treatment of lung cancer were comparable. However, compared with three-port VATS pulmonary resection, single-port and two-port were associated with shorter postoperative length of stay, shorter duration of chest tube, and decreased volume of drainage.

Biography
Mu Ju Wei completed his MD at Cancer Hospital of CAMS and PUMC. He is the Deputy Director and Professor of Department of Thoracic Surgery. He majored in minimally invasive thoracic surgery including surgical treatment of malignant lung, esophageal and mediastinal lesions. He has completed and participated in several national natural funds, province natural funds, and published several papers in oncogene and BMJ open, et al. He is also serving as Editorial Board Member of several magazines (including JTD and WJG).

mujuwei@cicams.ac.cn