MAY PNEUMONECTOMY HAVE A ROLE IN THE MULTIMODAL TREATMENT OF LOCALLY ADVANCED NON-SMALL CELL LUNG CANCER?


Department of Cardio-Thoracic and Vascular Sciences, University of Padua, Padua, Italy

Objectives: The role of surgery in the treatment of patients with stage IIIA-IIIB non-small cell lung cancer (NSCLC) is still a controversial topic. In particular, pneumonectomy after neoadjuvant therapy has often been associated with an unacceptable perioperative morbidity and mortality. We retrospectively reviewed our experience regarding this procedure to analyse the risks and benefits balance.

Methods: Medical records of 195 consecutive patients submitted to pneumonectomy for NSCLC between January 2000 and December 2009 were reviewed and divided in two groups: group 1 included patients who underwent a 2- or 3-drug platinum-based neoadjuvant chemotherapy regimen (30 patients, 15.4%); group 2 included patients submitted to surgery alone (165 patients, 84.6%). These two groups were then compared in terms of 30-day or in-hospital mortality and perioperative complications, particularly regarding bronchopleural fistula, pneumonia and empyema.

Results: In both groups patients were comparable regarding age, histology, co-morbidity and side of operation. In group 1 and 2, perioperative mortality was 6.6% and 7.3%, respectively (P = 0.9), overall major morbidity 36.6% and 33.3%, respectively (P = 0.72); incidence of bronchopleural fistula was 3.3% and 4.2% (P = 0.81); incidence of empyema 3.3% and 1.8% (P = 0.59); incidence of pneumonia 0% and 9.7% (P = NS), respectively.

Conclusions: Pneumonectomy after induction chemotherapy is associated with an acceptable overall perioperative morbidity and mortality. Early and aggressive chest physiotherapy has a leading role in preventing respiratory complications and improving surgical outcome. Multimodality treatment regimens in experienced institutions should not exclude this surgical option in carefully selected patients with locally advanced non-small cell lung cancer.

Disclosure: All authors have declared no conflicts of interest.