

Lung cancer stage is an independent risk factor for surgical mortality

Ugo Pastorino¹, Piero Borasio², Massimo Francese¹, Rosalba Miceli¹, Elisa Calabrò¹, Piergiorgio Solli³, Francesco Leo³, Silvia Novello², Giorgio Scagliotti², and Luigi Mariani¹

¹Istituto Nazionale Tumori, Milan; ²Ospedale S. Luigi Orbassano, Turin;

³Istituto Europeo di Oncologia, Milan, Italy

ABSTRACT

Aims and background. To study surgical mortality and evaluate major risk factors, with specific focus on the role of pathological stage in patients undergoing lung cancer resection.

Methods and study design. Age, gender, comorbidity, resection volume, experience of the hospital and surgical team have been reported as variables related to postoperative morbidity and mortality in lung cancer. The role of pathological tumor stage on postoperative mortality has never been fully evaluated. The study included 1418 consecutive lung cancer resections performed from 1998 to 2002 in two institutions. The effect of age, gender, comorbidity, resection volume, pathological stage and induction therapies on postoperative mortality was assessed by univariable and multivariable logistic regression analysis.

Results. Postoperative mortality was 1.8% overall, 3.7% (9/243) for pneumonectomy, 1.7% (17/1016) for lobectomy, and null (0/159) for sublobar resections ($P = 0.020$). At multivariable analysis, cardiovascular comorbidity ($P = 0.008$), resection volume ($P = 0.036$) and pathological stage ($P = 0.027$) emerged as significant predictors of surgical mortality.

Conclusions. Early stage lung cancer resection has a favorable effect on surgical mortality, not only by preventing the need for pneumonectomy, but also by reducing mortality after lobectomy.

Key words: early stage, lung cancer, risk factor, surgical mortality, tumor size.

Correspondence to: Dr Ugo Pastorino,
Via Venezian 1, Milan, Italy.
Tel +39-02-23902384;
fax +39-02-23902907;
e-mail
ugo.pastorino@istitutotumori.mi.it

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