Letter to the Editor

Acute lung injury and acute respiratory distress syndrome following pneumonectomy

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I read with great interest the excellent article entitled ‘Predicting pulmonary complications after pneumonectomy for lung cancer’ [1]. The authors reviewed a large number of cases undergoing pneumonectomy and confirmed that the pulmonary complications are the major cause of postoperative mortality following pneumonectomy. Algar et al. addressed seven groups of pulmonary complications in the paper. Unfortunately, I found such a classification rather confusing. The criteria for the complications classified as pneumonia (no. 1), atelectasis (no. 2) and pneumothorax (no. 7) are clearly defined. On the other hand, I think respiratory failure (RF) (no. 3), post-pneumonectomy pulmonary edema (PPE) (no. 4), ventilatory dependence (VD) (no. 5) and reintubation (no. 6) are harder for the reader to figure out. The criteria (pO$_2$ < 60, pCO$_2$ > 45 mmHg) given for RF occur due to several reasons some of which are managed with a basic support in patients following pneumonectomy. The criteria for the diagnosis of PPE have not been provided in the literature. Thus, ‘pulmonary edema without clinical evidence of heart failure’ is not explanatory for the reader to understand the clinical condition considered as PPE in the paper. Furthermore, some of the pulmonary complications are named as VD and reintubation. In conclusion, these four complications (nos. 3, 4, 5 and 6) seem to be similar and difficult to separate from each other. Any patient in this series might have required reintubation due to ARF caused by PPE.

Acute lung injury (ALI) and acute respiratory distress syndrome (ARDS) are postoperative complications following pulmonary resection that are well defined in the literature [2]. A variety of names including PPE is applied for postoperative lung injury (ALI/ARDS). It has been previously reported that postoperative lung injury is diagnosed not only following pneumonectomy but also following lobectomy even after minor resections [2]. The Consensus Committee provided objective criteria for the diagnosis of ALI/ARDS in 1994 [3]. Pulmonary complications are easily classified and reported using these objective criteria. It seems some of the patients considered as complicated with ARF, PPE, VD and reintubation might have been complicated with ALI/ARDS. This does not make any difference for the conclusion made by Algar et al., but I think it would be interesting to re-evaluate the results of the excellent series from that point of view.

References


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Reply to the Letter to the Editor

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We appreciate the comments by Kutlu about our paper regarding pulmonary complications after pneumonectomy for lung cancer [1]. Pulmonary complications after lung resection, especially pneumonectomy, are frequent and are