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Postoperative pneumonia or ventilator-induced lung injury?

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Dear Editor,

Recently, in your journal, Wan et al. [1] reported on the incidence and outcome of postoperative ARDS in kidney transplant patients. During the study period, 72 out of 1,369 (5 %) patients developed ARDS within 1 week after surgery: 10 patients with mild, 38 with moderate, and 24 patients with severe ARDS. The authors claim that all cases of ARDS were by pneumonia, though the diagnostic criteria used were not reported. However, too loose diagnostic criteria for pneumonia (e.g., not using bronchoalveolar lavage fluid) could lead to incorrect classification of infectious ARDS, consequently underestimating the

incidence of non-infectious ARDS [2].

Postoperative pulmonary complications, including postoperative ARDS, are associated with high morbidity and mortality [3]. Several randomized controlled trials suggest that so-called ‘protective’ ventilation strategies during general anaesthesia for surgery, which use low tidal volumes with or without high levels of positive end-expiratory pressure, prevent postoperative pulmonary complications [4–6]. One could hypothesize that postoperative ARDS in the study by Wan [1] could have been the consequence of the use of ‘non-protective’ ventilator settings during kidney transplant surgery; i.e., they should be seen as ‘ventilator-induced lung injury’ [7].

In this context, it would be very interesting to know how patients were ventilated during surgery, and whether there was an association between intraoperative ventilator settings, like tidal volume size and the level of positive end-expiratory pressures, and the occurrence of ARDS in the postoperative phase.

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