

# Poor outcome of laparoscopic cholecystectomy in patients with COPD: how determinant it is? [Letter]

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## Dear editor

We have read the study by Liao et al published in your journal with great interest.<sup>1</sup> The article evaluates the effects of COPD on the outcome of laparoscopic cholecystectomy. Although COPD is a well-known risk for postoperative pulmonary complications, it is interesting to know this association from this matched study with a relatively larger sample. The authors' findings and conclusions are relevant, but we consider that a few other aspects need to be taken into account from the practical point of view.

Firstly, from the methodological point of view, although the cohort was matched for age and gender, their comorbidities were very much different and may have affected the outcome measures like use of supports, ie, vasopressors, hemodialysis (HD), mechanical ventilation (MV), intensive care unit (ICU) stay, etc. Inclusion of patients with only COPD in the COPD group or using multivariate analysis may have helped in determining the real impact caused by COPD. In addition, the time period considered, ie, 1997–2013, is too long and the management strategy, especially for COPD patients, has evolved/changed a lot, diluting the applicability in the current practice.

Secondly, the information on intraoperative and postoperative respiratory management is very crucial and is missing. Respiratory management in hypercapnic, emphysema patient during pneumoperitoneum, use of multimodal analgesia, especially regional analgesia techniques, neuromuscular blockade management can impact the postoperative pulmonary conditions and outcome. Similarly, preoperative optimization strategy for risk reduction taken, induction of COPD specific treatment, if any, is also equally important.<sup>2–4</sup>

Finally, information on whether the facility of HD, MV, ICU were there in all the hospitals included is critical. It is because, it can lead to a selection bias, management differences, as well as impact in the outcome.

A recent meta-analysis indicates that laparoscopic major gastrointestinal surgery in COPD patients is safe and has its own benefits including reduced overall postoperative pulmonary complications.<sup>5</sup> However, proper patient selection is very important.<sup>5</sup> While we very much welcome and accept the conclusion of the authors, we believe that the bad prognosis, ie, increased mortality and mechanical ventilation, shown and attributed to COPD needs to be judged in the

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above perspective too. Future study will be required to find out the impact of current management of COPD, its attribution toward postoperative mortality and subgroup of COPD patients who are more vulnerable.

## Disclosure

The authors report no conflicts of interest in this communication.

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