



Letter to the Editor

A commentary on “Postoperative outcomes in elderly patients undergoing pancreatic resection for pancreatic adenocarcinoma: A systematic review and meta-analysis” (Int J Surg 2019;72:59–68)


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Dear Editor,

In a recent issue of *International Journal of Surgery*, Tan et al. [1], published an interesting article entitled “Postoperative outcomes in elderly patients undergoing pancreatic resection for pancreatic adenocarcinoma: A systematic review and meta-analysis”. We would like to thank the authors for making the incredible effort by comparing the postoperative outcomes of elderly patients with non-elderly patients following surgical resection for pancreatic adenocarcinoma. The authors concluded that there was no significant increase in postoperative mortality in the elderly patients although they had a higher risk of developing respiratory complications. Of note, statistical evidence of improvement in postoperative mortality over time (pre-2000 versus post-200) was observed. However, some details are worth improving in this work.

First, the selection of effect measures is of great importance for meta-analyses. The results of meta-analyses might be incorrect if effect measures were misapplied [2]. Although the interpretability of risk ratio (RR) is much better than odds ratio (OR), however, by definition, RR can only be calculated in prospective studies (cohort studies and RCTs). In retrospective studies only OR can be used. Problems may arise if the odds ratio is misinterpreted as a risk ratio [3]. All studies included in this meta-analysis were retrospective, however, RR was calculated for the dichotomous data in statistical analysis [1].

Second, a cumulative meta-analysis is a sequence of meta-analyses performed on subsets of the studies, starting with a single study and adding the other studies one at a time. It can not only provide a more accurate representation of the population relationship, but also reflects dynamic trends in research results, and helps to identify when a characteristic or statistically significant change first occurs [4]. In this article, using a cumulative meta-analysis may be better to demonstrate and confirm the reduction in postoperative mortality in elderly patients undergoing pancreatic surgery over time.

Third, this article was submitted to the journal on 28 May 2019, however, the literature searches were performed from inception of the

databases to November 2017 [1]. Studies that met the inclusion criteria might be missed for more than a year before the authors submitted the article to the journal. Moreover, an important study reported by Okabayashi et al. [5], published online in November 2016 was missed. This is possibly due to the improper search strategy used in the meta-analysis, which may affect the quality of this meta-analysis.

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Author contribution

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Not Applicable.

Guarantor

Zhe Ruan.

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Declaration of competing interest

None.

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