

## Water exchange versus air insufflation for colonoscopy: Methodological issues of the meta-analysis are a cause for concern

Sir,

I read with interest the meta-analysis published recently in SJG by Liu *et al.*<sup>[1]</sup> who concluded that the water exchange method could significantly increase ADR/PDR and improve patients' acceptance of colonoscopy, while reducing the degree of pain and minimize the need for on-demand sedation and adjunct maneuvers. However, there are some issues that require comment.

First, the search strategy adopted in the study is questionable. According to the Cochrane Handbook for Systematic Reviews of Interventions,<sup>[2]</sup> the search strategy of Medline database includes MeSH terms and free-text terms. However, we do not find this search strategy applied in this study. This may lead to incomplete retrieval of the literature. Moreover, the search strategy should be mentioned without any limitation of publication language.

Secondly, methodological quality of the included RCTs were not high, although the article mentions that blinding of the endoscopist could not be carried out in clinical practice, but the random sequence generation, allocation concealment, blinding of participants, and outcome assessment in some included trials were uncertain, and hence the adequacy of the methodological quality of the included studies cannot be evaluated. The risk of bias in the included literature has been more comprehensively elucidated in a similar meta-analysis addressing this clinical issue.<sup>[3]</sup> The authors point to the several methodological confounders including difference in inclusion and exclusion criteria, characteristics of patient cohorts, lack of assessor blinding, sedation model and colonoscopy skill level, potentially accounting for the differences recorded across subgroups of trials.

Based on the above issues, the conclusion of this article should be interpreted with caution, and more rigorously designed RCTs are warranted to confirm the current findings.

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### Conflicts of interest

There are no conflicts of interest.

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