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Letter to the Editor: ICU- and ventilator-free days with isoflurane or propofol as a primary sedative – A post- hoc analysis of a randomized controlled trial

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With great interest, we read the recently published article by Bracht, et al. who discuss that renal dysfunction was not uncommon; renal replacement therapy (RRT) was started in the 30 days from randomization in 18.3% of patients in the propofol group vs 2.9% of isoflurane patients [1].Bracht et al. was even adding in the abstract that RRT was started in a greater proportion of patients in the propofol group with a significant p value ($p = 0.011$).We beg to disagree.Looking at this sentence, we should believe that propofol is inducing acute kidney injury (AKI) and RRT 6 times more that isoflurane. This is not true, when looking carefully at the baseline data. For instance, ventilator duration before randomization, mean (SD) hours 16.2 for isoflurane and 19.7 for propofol [1]. SAPS II score, mean (SD) was 40.1 for isoflurane and 44.3 propofol [1]. SOFA score, mean (SD) 48 h after randomization 7.5 for isoflurane and 8.1 for propofol [1]. Infection at admission, n (%) 47.8 for isoflurane and 52.3 for propofol [1].Last but not least, RRT before enrollment, n (%) was 3% for isoflurane and 5.5% for propofol and so almost double [1].If we take altogether all these risk factors for AKI, there are clearly explain the rate of RRT higher in the propofol group [1].This has nothing to do with isoflurane itself.In a recent meta-analysis,analyzing the available literature on anesthetic modality and incidence of postoperative AKI. The meta-analysis revealed that propofol is associated with lower incidence of AKI compared with volatile anesthesia like isoflurane or sevoflurane [2]. It might therefore be considerable to use propofol anesthesia in surgeries with increased susceptibility for developing renal injuries such as cardiopulmonary bypass and major abdominal surgery [1].The population by Bracht et al. was also surgical in part [1]. Clearly, we might not give a wrong information to the clinician as propofol is not needing more RRT as compared to isoflurane even on the contrary [2].

Author's contributions

PMH designed the paper.
PMH, SB, EP participated in drafting and reviewing.
PMH, SB, EP read and approved the final version of the manuscript.

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Ethics approval and consent to participate

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Consent for publication

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Declaration of Competing Interest

The authors declare to have no competing interests.

Data availability

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Abbreviations: RRT, renal replacement therapy; AKI, Acute Kidney Injury.

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