

Should we Still use Nitrous Oxide in our Clinical Practice? No! Rebuttal to Daniel Sessler “Pro Nitrous oxide”

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In his pro nitrous oxide contribution Daniel Sessler promotes the use of nitrous oxide (N₂O) since this inexpensive inhalational anaesthetic with its favorable kinetics does not increase the risk of surgical site infection, postoperative myocardial infarction, or cancer recurrence. In his view, N₂O causes only two minor complications, which are nausea and bowel distension.

However, in our opinion he neglects the often occurring dangerously increasing cuff pressures and its consequences. Daniel Sessler is not discussing the ongoing numerous deaths caused by pipeline construction flaws. He argues that N₂O is inexpensive. But is this true? Is it really inexpensive? At least a subanalysis of the ENIGMA 1 trial with >2000 patients included, found an increase in total costs in the N₂O group when compared with the costs of the N₂O-free group (1). Daniel Sessler argues that postoperative nausea and vomiting are minor complications. However, in the ENIGMA II trial N₂O caused an increase in PONV even in patients receiving PONV prophylaxis when compared with patients receiving N₂O-free general anaesthesia without PONV prophylaxis (13.1 vs. 9.7%) (2). This article, which is co-authored by Daniel Sessler, concluded that severe PONV, which was observed in more than 10% of patients, was associated with postoperative fever, poor quality of recovery, and prolonged hospitalization.

He is deliberately playing down the environmental problems caused by nitrous oxide. Could our world still accept not to avoid environmental pollution especially if we have cost-effective alternatives? Okay, we are realizing that even minister of the new cabinet of president Trump are neglecting the global warming, but hopefully, we physicians are a little bit wiser.

Therefore, let's try to see the whole picture: The rather ineffective N₂O is not any longer needed in the armamentarium of the up-to-date anaesthesiologist. It may cause harm to patients, staff, and the ozone-layer. Skip it!

References

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