

Should surgery proceed or be abandoned after intra-operative anaphylaxis?

Sadleir et al. examined whether recovery outcomes were adversely affected by proceeding with the planned procedure after successful stabilisation of peri-operative anaphylaxis in 223 cases [1]. The authors recommended proceeding with surgery in patients with grades 1, 2 and 3 hypersensitivity reactions, provided that continuing management of hypersensitivity would not hinder successful completion of surgery or proceeding with the procedure if it would not impede re-institution of resuscitation if required. Although the findings in this study provide significant insights into clinical practice, we would like to invite the authors to clarify some important issues.

Firstly, the authors' use of the terms '*major hypersensitivity-related complications*' and '*major hypersensitivity-related sequelae*' may not be appropriate, because any complications or sequelae may result from hypersensitivity-related treatments rather than hypersensitivity per se. For instance, it has been well documented that Takotsubo cardiomyopathy is related to catecholamine surge [2, 3] which may be part of the treatment of hypersensitivity. However, the dosages of adrenaline in the two patients experiencing Takotsubo cardiomyopathy (both with grade-4 hypersensitivity reactions) were not mentioned. Similarly, taking into account the relationship between intra-operative fluid administration and the development of acute respiratory distress syndrome (ARDS) [4], the link between intravenous fluid during hypersensitivity management under general anaesthesia and the subsequent development of pulmonary complications (e.g. ARDS, prolonged mechanical ventilation) remains unclear from the authors' paper.

Secondly, the authors suggest that once initial resuscitation had been achieved, continuing with planned surgery in patients with grade 1, 2 and 3 hypersensitivity reactions was feasible. As objective criteria for successful

resuscitation (i.e. stabilisation) of intra-operative anaphylaxis were not well defined, subjective clinical judgement may have determined whether to proceed with surgery. Furthermore, the majority of patients in the study were relatively healthy (80.7% ASA status 1 or 2) and younger (mean (SD) age 47 (18) years). Do the authors consider that their findings can therefore be extrapolated to patients with higher operative risk?

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References

1. Sadleir PHM, Clarke RC, Bozic B, Platt PR. Consequences of proceeding with surgery after resuscitation from intra-operative anaphylaxis. *Anaesthesia* 2018; **73**: 32–9.
2. Pelliccia F, Kaski JC, Crea F, Camici PG. Pathophysiology of takotsubo syndrome. *Circulation* 2017; **135**: 2426–41.
3. Pelliccia F, Sinagra G, Elliott P, Parodi G, Basso C, Camici PG. Takotsubo is not a cardiomyopathy. *International Journal of Cardiology* 2018; **254**: 250–3.
4. Hughes CG, Weavind L, Banerjee A, Mercaldo ND, Schildcrout JS, Pandharipande PP. Intraoperative risk factors for acute respiratory distress syndrome in critically ill patients. *Anesthesia and Analgesia* 2010; **111**: 464–7.

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