to assist physicians in optimizing acute pain management in young children.

**Declaration of interest**

None declared.

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**Use of analgesia monitors to optimize the management of immediate postoperative pain**

**Reply from the authors**

Editor—We read with great interest the letter by Ly-Liu and Reinoso-Barbero in response to our publication.1

Similar to what we previously observed in adult patients using Analgesia/Nociception Index (ANI), the authors observed a significant correlation between the Pupillary Pain Index (PPI) and a behaviour paediatric pain scale (LLANTO scale) in children undergoing general anaesthesia using sevoflurane and remifentanil. This relationship was not observed with the PPI and Verbal Analogue Scale (VAS) pain scores, mostly because the VAS may be influenced by many factors other than pain in awake children, but also because young children may not use the VAS adequately.

Monitoring analgesia is a new and very challenging concept and developing tools for the prediction of immediate postoperative pain may have an important impact in clinical practice. Indeed, it as been shown in a recent study that severe pain still occurs in 20–40% of patients, including patients undergoing so-called minor surgical procedures (appendectomy, tonsillectomy, etc.).2 In this perspective, the use of analgesia monitors such as the ANI or PPI may provide useful information to physicians to optimize the management of immediate postoperative pain. It is postulated that ANI or PPI values immediately before extubation may be highly predictive of acute pain within the following minutes, thus the administration of a prophylactic dose of opioid may provide a reduction in pain scores at arrival in the post-anaesthetic care unit. This, however, remains to be demonstrated in prospective studies.

For us, use of the ANI presents an advantage over the PPI since it allows for continuous analgesia monitoring directly from the patient monitor, whereas the PPI requires measuring the changes in pupil dilation in response to increasing electric stimulations. Moreover, in cephalic procedures such as ear–nose–throat surgery, the use of a device placed over the face is not possible.

Nevertheless, the authors should be commended for performing this study in young children in an effort to optimize postoperative analgesia. Prospective studies comparing various monitors such as the ANI and PPI are urgently needed in both adults and children to determine the clinical benefit of analgesia monitoring in routine practice for acute postoperative pain management.

**Declaration of interest**

None declared.

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**Predictability of stroke volume variation**

Editor—I read with great interest the study of Guinot and colleagues1 regarding predictability of the respiratory variation of stroke volume, which showed that monitoring stroke volume may provide more reliable information than cardiac output concerning the effect of fluid infusion. Surely, this study would help us to guide fluid management, particularly in the subset of patients who have a significantly higher baseline heart rate, for example, patients in hypovolaemic shock? However, the authors have failed to mention whether they took into consideration the ventilatory and other confounding factors affecting stroke volume variation (SVV) in their study population.

Studies have shown that respiratory variations in stroke volume and its derivatives are affected by respiratory rate,