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Objectively assess nociception (pain), quantify and measure analgesia effect during surgery -Initial experiences

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Background

None-invasive techniques to measure pain have become clinically feasible (1). The PMD200 nociception level index (NOL[™]) is today a commercially available technique and gaining growing interest (1, 2). Its exact place in routine clinical practice is still not well proven. We explored the use in a pilot case series of patient undergoing head and neck surgery.

Methods

This is an explorative case series of 7 patients undergoing elective head and neck surgery in general anesthesia. NOL sensor was put on the patient finger before anesthesia was started and the values samples during the intraoperative period.

Results

The NOL values derived from the PMD200 showed increased values and were deterioration comparable with clinical status of the blood pressure and heart rate. The values increased significant (between 20-50 index values) from baseline fig. 1 through pain stimuli and ended spontaneously or were treated by e.g. opioids.

Conclusion

We found PMD200, nociception level index, to be an interesting technique as a complement the clinical monitoring by anesthesia personnel. Further studies around nociceptive technique monitoring are warranted.