

MEETING ABSTRACT

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Post-operative sleep quality and pain in children and adolescents

Julian Kammel^{1*}, Brigitte Messerer², Alexander Avian¹, Andrea Berghold¹

From Safety in hospitals: from strategy to implementation Annual Scientific Meeting 2015
Graz, Austria. 29-30 September 2015

Background

Post-operative sleep is one of the major aspects for rehabilitation and recovery after a surgical intervention. Sleep problems after surgery are common and are mainly triggered by the body's stress response to the trauma of surgery. This places high demands on the pre and post-operative care of children and adolescents. Our study examines the association between sleep and pain in young patients (11-19 years) during post-operative care.

Materials and methods

240 patients, aged 11 to 19 years, were included in this analysis of prospectively collected data. Children and adolescents filled out a questionnaire designed to survey pain and pain-related problems in postoperative paediatric patients. The pain was assessed using the 6-face Faces Pain Scala revised (0-2-4-6-8-10), the sleep related aspect by dichotomous items (yes/no) or polytomous items (never to always).

Results

Postoperative sleep was associated with pain. Patients who were tired on the first postoperative day had significant more rest pain [median (IQR): 2 (0-4) vs. 0 (0-2); $p = .003$] and pain during movement in bed [4 (2-6) vs. 2 (2-4); $p = .006$].

Problems to fall asleep the previous day because of pain were associated with patient's well-being. Patients who had problems to fall asleep felt weaker ($p < .001$), more depressed ($p = .003$) and less well ($p < .001$) compared to patients without pain related problem to fall asleep.

Awakening because of pain and the patient's feeling showed a similar pattern. Patients who were more likely

to wake up because of pain during night felt weaker ($p < .001$), more depressed ($p = .021$) and less well ($p < .001$).

Conclusion

Postoperative pain had a significant negative impact on sleep quality and therefore on recovery after surgery. Showing the association between sleep quality and pain could be useful to offer a more individual pain therapy. Improving sleep quality by an optimized postoperative care is an important target to guarantee an optimal recovery.

Authors' details

¹Institute for Medical Informatics, Statistics and Documentation, Medical University of Graz, Austria. ²Department of Anesthesiology and Intensive Care, Medical University of Graz, Austria.

Published: 30 October 2015

doi:10.1186/2056-5917-1-S1-A4

Cite this article as: Kammel et al.: Post-operative sleep quality and pain in children and adolescents. *Safety in Health* 2015 **1**(Suppl 1):A4.

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* Correspondence: julian@kammel.co.at

¹Institute for Medical Informatics, Statistics and Documentation, Medical University of Graz, Austria

Full list of author information is available at the end of the article