Perioperative Gabapentin Reduces Opioid Consumption After Colorectal Surgery

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Background and aims

Opiates have a dominant role in postoperative pain management. Opiates have several adverse effects and carry a significant potential for addiction. Thus, there is a need for other analgesic alternatives with less side effects. We hypothesized that postoperative gabapentin reduces opioid requirements.

Methods

Perioperative data on consecutive patients undergoing major colorectal surgery at Ersta Hospital within an enhanced-recovery (ERAS) programme during 2016-2017 were prospectively collected. Effects of gabapentin were analyzed retrospectively. Primary outcome was total oral morphine equivalent administered during the first five days after operation. Secondary outcomes were length of hospital stay and time to resumed gut function. Data are means (SEM). Univariable and multivariable linear regression was used to identify predictors of OME. The study was approved by the ethics committee.

Results

Out of 404 patients undergoing surgery, gabapentin was administered to 249. Length of hospital stay and time to resumed gut function did not differ between groups. Among the patients who received Gabapentin, mean total OME consumption was 61.0 (4.9) mg vs 86.9 (6.2) mg in those who did not ($p = 0.0011$). Correcting for significant confounders (age, axial block and procedure type), gabapentin usage remained an independent predictor of OME ($P < 0.0001$).

Conclusion

This study demonstrates that Gabapentin is a tolerated and opioid-sparing analgesic alternative after major colorectal surgery within an ERAS program, and should be considered an important component of multi-modal analgesia.