PubMed

Format: Abstract

Full text links

ANESTHESIOLOGY

Anesthesiology. 2011 May;114(5):1144-54. doi: 10.1097/ALN.0b013e31820fc7d2.

Optimized perioperative analgesia reduces chronic phantom limb pain intensity, prevalence, and frequency: a prospective, randomized, clinical trial.

Karanikolas M[1], Aretha D, Tsolakis I, Monantera G, Kiekkas P, Papadoulas S, Swarm RA, Filos KS.

Author information

Abstract

BACKGROUND: Severe preamputation pain is associated with phantom limb pain (PLP) development in limb amputees. We investigated whether optimized perioperative analgesia reduces PLP at 6-month follow-up.

METHODS: A total of 65 patients underwent lower-limb amputation and were assigned to five analgesic regimens: (1) Epi/Epi/Epi patients received perioperative epidural analgesia and epidural anesthesia; (2) PCA/Epi/Epi patients received preoperative intravenous patient-controlled analgesia (PCA), postoperative epidural analgesia, and epidural anesthesia; (3) PCA/Epi/PCA patients received perioperative intravenous PCA and epidural anesthesia; (4) PCA/GA/PCA patients received perioperative intravenous PCA and general anesthesia (GA); (5) controls received conventional analgesia and GA. Epidural analgesia or intravenous PCA started 48 h preoperatively and continued 48 h postoperatively. The results of the visual analog scale and the McGill Pain Questionnaire were recorded perioperatively and at 1 and 6 months.

RESULTS: At 6 months, median (minimum-maximum) PLP and P values (intervention groups vs. control group) for the visual analog scale were as follows: 0 (0-20) for Epi/Epi/Epi (P = 0.001), 0 (0-42) for PCA/Epi/Epi (P = 0.014), 20 (0-40) for PCA/Epi/PCA (P = 0.532), 0 (0-30) for PCA/GA/PCA (P = 0.008), and 20 (0-58) for controls. The values for the McGill Pain Questionnaire were as follows: 0 (0-7) for Epi/Epi/Epi (P < 0.001), 0 (0-9) for PCA/Epi/Epi (P = 0.003), 6 (0-11) for PCA/Epi/PCA (P = 0.208), 0 (0-9) for PCA/GA/PCA (P = 0.003), and 7 (0-15) for controls. At 6 months, PLP was present in 1 of 13 Epi/Epi/Epi, 4 of 13 PCA/Epi/Epi, and 3 of 13 PCA/GA/PCA patients versus 9 of 12 control patients (P = 0.001, P = 0.027, and P = 0.009, respectively). Residual limb pain at 6 months was

insignificant.

CONCLUSIONS: Optimized epidural analgesia or intravenous PCA, starting 48 h preoperatively and continuing for 48 h postoperatively, decreases PLP at 6 months.

TRIAL REGISTRATION: ClinicalTrials.gov NCT00443404.

Comment in

Do we have the tools to prevent phantom limb pain? [Anesthesiology. 2011]
Residual limb pain: more than a single entity? [Anesthesiology. 2012]

PMID: 21368651 DOI: 10.1097/ALN.0b013e31820fc7d2

[Indexed for MEDLINE]

Publication type, MeSH terms, Secondary source ID

LinkOut - more resources