Clinical efficacy of controlled-release oxycodone 20 mg administered on a 12-h dosing schedule on the management of postoperative pain after breast surgery for cancer.

Kampe S1, Warm M, Kaufmann J, Hundegger S, Mellinghoff H, Kiencke P.

Author information

• 1Department of Anaesthesiology, University of Cologne, Cologne, Germany. Sandra.Kampe@medizin.uni-koeln.de

Abstract

OBJECTIVE:

To assess clinical efficacy of controlled-release oxycodone (CRO) 20 mg on a 12-h dosing schedule in this prospective, randomised, placebo-controlled, double-blinded study of 40 ASA physical status I-III women undergoing breast surgery for cancer.

RESEARCH DESIGN AND METHODS:

General anaesthesia using remifentanil and propofol was performed for surgery. Both groups received premedication with oral midazolam 7.5 mg 1 h before surgery. In the controlled-release oxycodone group, one tablet of 20 mg CRO was administered with the premedication, and 12 h after the premedication another 20 mg CRO. In the placebo (PL) group, a placebo tablet was administered with the premedication, and 12 h later another placebo tablet. All patients had access to opioid rescue medication via an IV patient-controlled analgesia (PCA) device.

MAIN OUTCOME MEASURES:

Area under the curve (AUC), based on IV opioid rescue consumption over 24 h postoperatively.

RESULTS:

The AUC for IV PCA opioid consumption was significantly lower in the CRO group than in the PL group (p = 0.01). The CRO group required less IV opioid loading dose (p < 0.001), and consumed less opioid rescue medication 4 h (p = 0.036), 16 h (p = 0.01), and 24 h (p = 0.005) postoperatively. AUC for VAS scores at rest was significantly lower in the CRO group than in the PL group (p = 0.05). VAS scores at rest were lower in the CRO group 16 h (p = 0.04) and 24 h (p = 0.03) postoperatively. There was no difference in AUC for pain scores on movement (p = 0.103) and for quality of analgesia (p = 0.139). There was no difference in nausea between groups (p = 0.34). Pruritus, arterial hypotension or hypertension, bradycardia, and tachycardia were not observed in either treatment group. None of the patients showed signs of confusion, agitation, or respiratory depression.

CONCLUSIONS:

The administration of CRO 20 mg on a 12-h dosing schedule halves postoperative IV PCA opioid consumption. CRO 20mg is effective in preventing pain after breast surgery for cancer with only mild side-effects.