COMPARING ANALGESIC REQUIREMENTS AFTER A NON-OPIATE ANESTHESIA AND AN OPIATE ANESTHESIA IN BREAST CANCER PATIENTS: A PROSPECTIVE RANDOMIZED, DOUBLE-BLINDED, CONTROLLED TRIAL

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1. BACKGROUND & GOAL OF THE STUDY

Opioids provide an excellent analgesic effect peri-operatively, however, like every drug, not without side-effects. Post-operative complications, such as respiratory depression, post-operative nausea and vomiting, pruritus, difficulty voiding and ileus are well known.

In this study, analgesic requirement was examined after patients received opiate anesthesia and non-opiate anesthesia.

2. MATERIALS & METHODS

A randomized controlled trial containing two groups with each 33 breast cancer patients undergoing a mastectomy or lumpectomy associated with a total axillary dissection was conducted between 29/09/2014 and 09/07/2015 at the Jules Bordet Institute, Brussels.

Per-operative non-opiate analgesia was obtained by combining clonidine (0.2 mcg/kg), ketamine (0.3 mg/kg) and lidocaine (1.5 mg/kg). An extra bolus of ketamine (0.2mg/kg) was given if necessary.

Opiate analgesia was obtained via a combination of remifentanyl TCI, ketamine (0.3 mg/kg) and lidocaine (1.5 mg/kg).

Both groups received IV paracetamol (1000mg/6h) and IV diclofenac (75 mg/12h).

Patients received a PCA (patient-controlled analgesia) pump for breakthrough pain during the first 24 hours post-operatively.

Clinical characteristics and post-operative piritramide consumption were assessed during the first 24 hours post-operatively.

Non-parametric Wilcoxon test was used to compare postoperative piritramide consumption.

3. RESULTS & DISCUSSION

Data were lacking for two patients in the non-opiate group. A total of 64 patients were included in the study.

In the PACU, immediate piritramide usage was 3.0 (2.0-6.0) mg in the opioid free group and 4.6 (4.0-6.0) in the opioid group. ($P > 0.05$)

The total piritramide usage 24 hours post-operatively was 8.1 (2.0-14.5) mg in the non-opiate group and 13.1 (6.0-16.0) mg in the opioid group. ($P < 0.05$)

The difference observed was statistically significant. Thus, these values show that patients in the non-opiate group require less analgesics 24 hours post-operatively.

4. CONCLUSION

Anesthesia was uneventful in both groups.

Patients require less analgesics 24 hours after a non-opiate anesthesia than after an opiate anesthesia.