

The Effect of Aromatherapy on Postoperative Nausea in Women Undergoing Surgical Procedures

Luisa Ferruggiari, MS, RN, ANP-C, CPAN, Barbara Ragione, BS, RN, CPAN, Ellen R. Rich, PhD, RN, FNP, FAANP, Kathleen Lock, MBA

Postoperative nausea and vomiting (PONV) is a common source of patient discomfort and decreased satisfaction. Aromatherapy has been identified as a complementary modality for the prevention and management of PONV. The purpose of this study was to assess the effect of aromatherapy on the severity of postoperative nausea (PON) in women undergoing surgical procedures in the postanesthesia care unit. Women complaining of PON received traditional antiemetics, inhalation of peppermint oil, or saline vapor. A visual analog scale was used to rate nausea at the first complaint; at 5 minutes after intervention; and, if nausea persisted, at 10 minutes after intervention. At both 5 and 10 minutes, statistical analysis showed no significant differences between intervention and nausea rating. Obtaining eligible subjects was challenging. Although many women consented, most received intraoperative antiemetics and did not report nausea postoperatively.

Keywords: *postoperative nausea and vomiting, aromatherapy, complementary modality, antiemetics, postanesthesia care unit, peppermint.*

© 2012 by American Society of PeriAnesthesia Nurses

POSTOPERATIVE NAUSEA AND vomiting (PONV) is a common cause of discomfort that contributes to patient dissatisfaction after surgery and may lead to an increased length of stay in the postanesthesia care unit (PACU).¹ One-third of surgical patients each year experience PONV.² Documented categories of greater risk for postoperative nausea are female gender, nonsmoker status, previ-

ous history of PONV, history of motion sickness, and duration of surgery longer than 60 minutes.³

Pharmacologic treatments for symptoms of postoperative nausea often vary in their effectiveness. Many drugs used to treat postoperative nausea are costly, have sedative effects, and may cause cardiac arrhythmias.⁴ Aprepitant, a neurokinin 1 receptor antagonist, has been recommended as a first-line treatment for PONV. However, its acquisition cost is relatively high, making it less appealing as a first-line agent.⁵

Classes of antiemetics such as the benzamides, phenothiazines, and antihistamines have sedative effects. The associated sedative side effects limit the use of antiemetics in outpatient surgical cases.⁶ Droperidol was recommended for administration at the end of surgery to patients at high risk for developing PONV.⁷ In 2001, the Food and Drug Administration issued a black box warning regarding potential for QT interval prolongation and cardiac arrhythmias that may result in torsades de pointes and sudden cardiac death, and droperidol use dropped dramatically.^{5,8} Ondansetron is classified

Luisa Ferruggiari, MS, RN, ANP-C, CPAN, Perioperative Acute Pain Service Adult Nurse Practitioner, Good Samaritan Hospital Medical Center, West Islip, NY; Barbara Ragione, BS, RN, CPAN, Coordinator of Nursing Informatics, Good Samaritan Hospital Medical Center, West Islip, NY; Ellen R. Rich, PhD, RN, FNP, FAANP, Professor, Molloy College, Rockville Centre, NY; and Kathleen Lock, MBA, Data Coordinator, Catholic Health Services of Long Island, Rockville Centre, NY, but was Performance Improvement Coordinator for Good Samaritan Hospital Medical Center in West Islip, NY, when this article was written.

Conflict of interest: None to report.

Address correspondence to Ellen R. Rich, Molloy College, 1000 Hempstead Avenue, PO Box 5002, Rockville Centre, NY 11571; e-mail address: ellenrichfnp@aol.com.

© 2012 by American Society of PeriAnesthesia Nurses

1089-9472/\$36.00

<http://dx.doi.org/10.1016/j.jopan.2012.01.013>

as a serotonin antagonist, more specifically, a 5-HT₃ receptor antagonist. It is used in the treatment of PONV and does not produce unwanted adverse effects such as sedation, dry mouth, and extra pyramidal symptoms that are associated with other traditional antiemetics.⁵

Patients often state that the fear of developing PONV outweighs the fear of pain they may experience postoperatively.¹ Those patients who have had previous episodes of postoperative nausea tend to be most fearful of a recurrence. Gan et al⁹ found that patients recovering in PACUs were willing to pay an average of \$56 to \$100 for an antiemetic that would eliminate PONV.

Internet and media sources have fostered patients' increased awareness of nontraditional therapies. This awareness has led to patient inquiries about alternative measures before surgery in an attempt to mitigate the occurrence of postoperative nausea. The US Department of Health and Human Services through the National Center for Complementary and Alternative Medicine has identified essential oil of peppermint as a complementary therapy for a variety of health conditions such as nausea, indigestion, and irritable bowel syndrome.¹⁰

Aromatherapy is defined as a treatment using scents.¹¹ Aromatherapy with peppermint oil, considered a herbal remedy,¹⁰ is a nontraditional treatment modality added to the present conventional treatment options available for PONV.³ Inhalation of essential oils leads to systemic absorption by way of the nasal mucosa and lungs. It may take only minutes for essential oils to appear in the bloodstream after inhalation. Because essential oils are lipophilic, they are absorbed by the brain and nervous system.¹² Mamaril et al¹³ cite the use of aromatherapy as a nontraditional option for the treatment of PONV. Aromatherapy using peppermint oil has been suggested as an effective and cost-efficient complementary therapy for nausea both postoperatively and in other health care settings.¹⁴ Potential advantages of aromatherapy with peppermint oil include rapid onset, ease of administration, and absence of any major side effects.¹⁰ Another advantage of aromatherapy is potential cost savings if aromatherapy can be shown to replace traditional antiemetics. For example, peppermint oil is inexpensive, but every episode of vomiting is related to approximately

a 20-minute delay in PACU discharge that could result in a cost of several hundred million dollars per year.⁹ The purpose of this study was to assess the effect of aromatherapy with peppermint oil on the severity of postoperative nausea in women in the PACU after undergoing surgical procedures.

Literature Review

The review of the literature related to PONV includes complementary treatment modalities such as aromatherapy. The American Society of Perianesthesia Nurses, recognizing the lack of a multimodal treatment approach to PONV, developed a clinical practice guideline in 2006.³ A strategic work team consisting of 16 multidisciplinary multispecialty experts convened and produced strong evidence-based recommendations regarding the prevention and/or management of PONV. Included in these recommendations were complementary treatment modalities listing aromatherapy as an appropriate rescue intervention.³

Research performed to date has been inconclusive regarding the effect of aromatherapy with peppermint oil. Existing studies are limited by very small group sizes. Tate¹⁴ divided 18 gynecologic surgery patients into three groups: control (no treatment), placebo (peppermint essence), and experimental (peppermint oil). Although some significant difference was found in postoperative nausea between the placebo and experimental groups ($P = .0487$), little can be inferred because of small sample size and numbers of confounding variables.

Anderson and Gross⁴ divided 33 ambulatory surgery patients into three groups: aromatherapy with peppermint, isopropyl alcohol, and saline. Results indicated that aromatherapy significantly reduced the perceived severity of postoperative nausea in all three groups. The fact that a saline placebo was as effective as alcohol or peppermint suggested that the beneficial effect may have been related to controlled breathing practices rather than the actual aroma inhaled. Normal saline is free of scent, and there is no evidence in the literature that inhalation of saline vapor has an effect on nausea. Generalizability of the study by Anderson and Gross⁴ was limited because of a small sample size. The lack of literature supports a need for more research regarding the effect of peppermint oil aromatherapy on postoperative nausea.

Download English Version:

<https://daneshyari.com/en/article/2668794>

Download Persian Version:

<https://daneshyari.com/article/2668794>

[Daneshyari.com](https://daneshyari.com)