Aromatherapy inhalation for nausea of chemo and cancer

The use of aromasticks at a cancer centre: a retrospective audit.

Dyer J[1], Cleary L[2], Ragsdale-Lowe M[2], McNeill S[2], Osland C[3].

Complement Ther Clin Pract. 2014 Nov;20(4):203-6. doi: 10.1016/j.ctcp.2013.11.006. Epub 2013 Nov 28.

Abstract

AIM:

To consider the use of aromasticks in a cancer centre in the UK: the reasons for their use, the choice of essential oils used in them and the demographics of the patients to whom they were given.

BACKGROUND:

Aromasticks are personal aromatherapy inhaler devices, used in this hospital by the complementary therapy team to improve patients' well-being and quality of life by helping with symptom control.

DESIGN:

A retrospective audit of aromastick use covering a 28 month period from January 2011-April 2013.

RESULTS:

A total of 514 aromasticks were given out, to patients with a variety of cancer diagnoses and symptoms. The most common reasons for aromastick use were to alleviate nausea or to encourage relaxation. Lavender (Lavandula angustifolia), lemon (Citrus limon), frankincense (Boswellia carterii), bergamot (Citrus bergamia), orange sweet (Citrus sinensis) and peppermint (Mentha x piperita) were the essential oils used most often.

Aromasticks in cancer care: an innovation not to be sniffed at.

Stringer J[1], Donald G.

Complement Ther Clin Pract. 2011 May;17(2):116-21. doi: 10.1016/j.ctcp.2010.06.002.

Abstract

AIM:

To evaluate the effects of a new aromatherapy intervention introduced within an acute cancer care setting in the UK.

BACKGROUND:

Aromatherapy is a popular complementary therapy within oncology settings and is known to help relieve patients' anxiety. A new method of delivering aromatherapy to patients was

adopted by a complementary therapy service at a UK hospital; aromasticks are similar in design to the Vicks® Vapour Inhaler®, with the intention of helping patients manage anxiety, nausea and sleep disturbance.
DESIGN:
A retrospective service evaluation.
METHOD:
Patients referred to the complementary therapy service were, if appropriate, offered an aromastick. If the offer was accepted patients' details were captured on an evaluation form. One week later the patients were followed up by a different therapist. Frequency of using the aromastick and perceived benefits were documented. A total of 160 patients were included in this evaluation.
RESULTS:
77% (n = 123) of all patients reported deriving at least one benefit from the aromastick. In anxious patients, 65% reported feeling more relaxed and 51% felt less stress. 47% of nauseous patients said that the aromastick had settled their nausea and 55% of those experiencing sleep disturbances felt that aromastick helped them sleep. The results also suggest that the effects of the aromastick may be directly proportional to the frequency of their use.
RELEVANCE TO CLINICAL PRACTICE:
Evidence demonstrating physiological changes associated with aroma inhalation plus the data presented in this paper highlight the potential for aromasticks within the clinical setting. Although the results of this evaluation of patient perspectives are not controlled, the data does underline the worth of further investigation. Future research is needed to show that aromasticks represent a tool patients can use to self-manage their own symptoms and help them retain an internal locus of control.

Effects of inhaled ginger aromatherapy on chemotherapy-induced nausea and vomiting and health-related quality of life in women with breast cancer. Complement Ther Med. 2015 Jun;23(3):396-404. doi: 10.1016/j.ctim.2015.03.009. Epub 2015 Apr 21. Lua PL[1], Salihah N[2], Mazlan N[3].
Abstract
OBJECTIVE:
To assess the efficacy of inhaled ginger aromatherapy on nausea, vomiting and health-related quality of life (HRQoL) in chemotherapy breast cancer patients.
DESIGN:
Single-blind, controlled, randomized cross-over study. Patients received 5-day aromatherapy treatment using either ginger essential oil or fragrance-matched artificial placebo (ginger fragrance oil) which was instilled in a necklace in an order dictated by the treatment group sequence.
SETTING:
Two oncology clinics in the East Coast of Peninsular Malaysia.
MAIN OUTCOME MEASURES:
VAS nausea score, frequency of vomiting and HRQoL profile (EORTC QLQ-C30 scores).
RESULTS:

Sixty female patients completed the study (age=47.3±9.26 years; Malay=98.3%; on highly emetogenic chemotherapy=86.7%). The VAS nausea score was significantly lower after ginger essential oil inhalation compared to placebo during acute phase (P=0.040) but not sustained for overall treatment effect (treatment effect: F=1.82, P=0.183; time effect: F=43.98, P<0.001; treatment×time effect: F=2.04; P=0.102). Similarly, there was no significant effect of aromatherapy on vomiting [F(1, 58)=0.29, P=0.594]. However, a statistically significant change from baseline for global health status (P<0.001) was detected after ginger essential oil inhalation. A clinically relevant 10 points improvement on role functioning (P=0.002) and appetite loss (P<0.001) were also documented while patients were on ginger essential oil.

CONCLUSION:

At present time, the evidence derived from this study is not sufficiently convincing that inhaled ginger aromatherapy is an effective complementary therapy for CINV. The findings for HRQoL were however encouraging with significant improvement in several domains.

Aromatherapy for postoperative nausea

Aromatherapy as treatment for postoperative nausea: a randomized trial. Anesth Analg. 2013 Sep;117(3):597-604. doi: 10.1213/ANE.0b013e31824a0b1c. Epub 2012 Mar 5.
Hunt R[1], Dienemann J, Norton HJ, Hartley W, Hudgens A, Stern T, Divine G.

Abstract

BACKGROUND:

Postoperative nausea (PON) is a common complication of anesthesia and surgery. Antiemetic medication for higher-risk patients may reduce but does not reliably prevent PON. We examined aromatherapy as a treatment for patients experiencing PON after ambulatory surgery. Our primary hypothesis was that in comparison with inhaling a placebo, PON will be reduced significantly by aromatherapy with (1) essential oil of ginger, (2) a blend of essential oils of ginger, spearmint, peppermint, and cardamom, or (3) isopropyl alcohol. Our secondary hypothesis was that the effectiveness of aromatherapy will depend upon the agent used.

METHODS:

A randomized trial of aromatherapy with patients who reported nausea in the postanesthesia care unit was conducted at one ambulatory surgical center. Eligibility criteria were adult, able to give consent, and no history of coagulation problems or allergy to the aromatherapy agents. Before surgery, demographic and risk factors were collected. Patients with a nausea level of 1 to 3 on a verbal descriptive scale (0-3) received a gauze pad saturated with a randomly chosen aromatherapy agent and were told to inhale deeply 3 times; nausea (0-3) was then measured again in 5 minutes. Prophylactic and postnausea antiemetics were given as ordered by physicians or as requested by the patient.

RESULTS:

A total of 1151 subjects were screened for inclusion; 303 subjects reporting nausea were enrolled (26.3%), and 301 meeting protocol were analyzed (26.2%). The change in nausea level was significant for the blend (P < 0.001) and ginger (P = 0.002) versus saline but not for alcohol (P < 0.76). The number of antiemetic medications requested after aromatherapy

was also significantly reduced with ginger or blend aromatherapy versus saline (P = 0.002 and P < 0.001, respectively).
CONCLUSION:
The hypothesis that aromatherapy would be effective as a treatment for PON was supported. On the basis of our results, future research further evaluating aromatherapy is warranted. Aromatherapy is promising as an inexpensive, noninvasive treatment for PON that can be administered and controlled by patients as needed.

Investigating the effects of inhaling ginger essence on post-nephrectomy nausea and vomiting.

Complement Ther Med. 2015 Dec;23(6):827-31. doi: 10.1016/j.ctim.2015.10.002. Epub 2015 Oct 30.
Adib-Hajbaghery M[1], Hosseini FS[2].
Abstract
OBJECTIVE:
There is a knowledge gap regarding the effects of ginger essence on postoperative nausea and vomiting. This study aimed to evaluate the effect of ginger essence on post-nephrectomy nausea and vomiting.
DESIGN:
A randomized controlled trial was conducted.
SETTING:
This study was conducted from third April to first October 2014 in Labbafinejad hospital, Tehran, Iran. Totally, 120 nephrectomy patients were randomly allocated to either the treatment or the control groups. After nephrectomy, we applied two drops of ginger essence to a 2 × 2-inch gauze that was attached to the patients' collars in the treatment group to allow patients to inhale the evaporated essence along with the air room and then repeated every 30 min for two hours. The control group was similarly treated with normal saline. Nausea was assessed using a visual analogue scale every 30 min for two hours and at the sixth hour after surgery. The paired- and independent-samples t and repeated measures analysis of variance tests were used for data analysis.
RESULTS:
The means nausea intensity were in the treatment and the control groups were 7.09 ± 1.59 and 7.40 ± 1.71 at thirty minutes after surgery (P value > 0.05). However, the mean nausea intensity in the treatment group at the four subsequent times were significantly lower than the control group (P value < 0.001). The numbers of vomiting episodes at two and six hours after the surgery were 0.88 ± 0.78 and 2.58 ± 1.35, in the treatment group and 4.80 ± 1.87 and 2.58 ± 1.35 in the control group. The differences between the two groups regarding the numbers of vomiting episodes were statistically significant (P value < 0.001).
CONCLUSION:
Inhaling ginger essence has positive effect on postoperative nausea and vomiting. Using ginger essence for managing postoperative nausea and vomiting is recommended.

Ginger Essence Effect on Nausea and Vomiting After Open and Laparoscopic Nephrectomies.

Nurs Midwifery Stud. 2015 Jun;4(2):e28625. doi: 10.17795/nmsjournal28625. Epub 2015 Jun 27.
Hosseini FS[1], Adib-Hajbaghery M[2].
Abstract
BACKGROUND:
Some studies reported that ginger was effective in prevention or treatment of post-surgical nausea and vomiting; however, there are controversies. In addition, no study compared the effects of ginger on nausea and vomiting after open and laparoscopic nephrectomies.
OBJECTIVES:
The current study aimed to compare the effect of ginger essence on nausea and vomiting after open versus laparoscopic nephrectomies.
PATIENTS AND METHODS:
A randomized, placebo trial was conducted on two groups of patients, 50 open and 50 laparoscopic nephrectomy. Half of the subjects in each group received ginger essence and the other half received placebo. Using a visual analogue scale the severity of nausea was assessed every 15 minutes for the first two post-operative hours and the sixth hour. Frequency of vomiting was counted until the sixth hour. The placebo subgroups were treated similarly. Descriptive statistics were employed. Chi-square and Fisher's exact tests, paired and independent samples t-test and repeated measure analysis of variance were used to analyze the data.
RESULTS:
Repeated measure analysis of variance showed that the type of surgery and the type of intervention as factors had significant effects on the nausea severity scores in the nine successive measurements ($P < 0.001$). In the first two post-operative hours, the mean vomiting episodes was 2.92 ± 0.70 in the subjects who underwent open surgery and received placebo while it was 0.16 ± 0.37 in patients with the same surgery but receiving ginger essence ($P = 0.001$). The mean vomiting episodes was 6.0 ± 1.33 in the subjects who underwent laparoscopic surgery and received placebo while it was 1.39 ± 0.78 in patients with the same surgery but receiving ginger essence ($P = 0.001$).
CONCLUSIONS:
Using ginger essence was effective in reducing nausea and vomiting not only in the subjects who underwent open nephrectomy but also in the subjects of laparoscopic nephrectomy. Using ginger essence is suggested as a complementary remedy to prevent and treat post-operative nausea and vomiting in patients with nephrectomy.

The Efficacy of Aromatherapy in the Treatment of Postdischarge Nausea in Patients Undergoing Outpatient Abdominal Surgery.

J Perianesth Nurs. 2015 Oct;30(5):383-8. doi: 10.1016/j.jopan.2014.10.004.
Mcilvoy L, Richmer L, Kramer D, Jackson R, Shaffer L, Lawrence J, Inman K.
Abstract
PURPOSE:
The purpose of this study was to explore the effectiveness of the aromatherapy product QueaseEASE (QE) for decreasing postdischarge nausea (PDN) in patients undergoing outpatient abdominal surgery.

DESIGN:
Prospective exploratory study.
METHODS:
Informed Consent was obtained preoperatively from a convenience sample of adult patients scheduled for outpatient abdominal surgery procedures. Prior to discharge, subjects were instructed in the use of QE and given instructions on how to rate their nausea on a 0-10 scale. They recorded nausea scales > 0 any time they occurred for the next 24 hours, used the QE, and recorded their nausea scales 3 minutes later. A study nurse called subjects the next day to collect the information.
FINDINGS:
The sample included 70 outpatients who underwent abdominal surgery. Twenty-five participants (36%) reported experiencing PDN and their concomitant use of QE. There was a significant difference in mean age of those reporting PDN (37 years) versus those without nausea (48 years, P = .004) as well as a significant difference in mean intravenous fluid intake during hospitalization of those reporting PDN (1,310 mL) versus those without nausea (1,511 mL, P = .04). The PDN group had more female participants (72% vs 42%, P = .02), more participants that were less than 50 years of age (84% vs 53%, P = .02), and received more opioids (100% vs 76%, P = .006) than the no nausea group. The 25 PDN participants reported 47 episodes of PDN in which they used QE. For all of the 47 PDN episodes experienced, participants reported a decrease in nausea scale (0 to 10) after the use of QE; for 22 (47%) of the PDN episodes experienced, a nausea scale of 0 after using QE was reported. The mean decrease in nausea scale for all 25 participants was 4.78 (±2.12) after using QE.
CONCLUSION:
This study found that the aromatherapy QE was an effective treatment of PDN in select same-day abdominal surgery patients.

Examination of the effectiveness of peppermint aromatherapy on nausea in women post C-section.
J Holist Nurs. 2012 Jun;30(2):90-104; quiz 105-6. doi: 10.1177/0898010111423419. Epub 2011 Oct 27.
Lane B[1], Cannella K, Bowen C, Copelan D, Nteff G, Barnes K, Poudevigne M, Lawson J.
Abstract
PURPOSE:
This study examined the effect of peppermint spirits on postoperative nausea in women following a scheduled C-section.
DESIGN:
A pretest-posttest research design with three groups was used. The peppermint group inhaled peppermint spirits, the placebo aromatherapy control group inhaled an inert placebo, green-colored sterile water, and the standard antiemetic therapy control group received standard antiemetics, usually intravenous ondansetron or promethazine suppositories.
METHODS:
Women were randomly assigned to a group on admission to the hospital. If they became nauseated, nurses on the mother-baby unit assessed their nausea (baseline), administered

the assigned intervention, and then reassessed participants' nausea 2 and 5 minutes after the initial intervention. Participants rated their nausea using a 6-point nausea scale.
FINDINGS:
Thirty-five participants became nauseated post-operatively. Participants in all three intervention groups had similar levels of nausea at baseline. The nausea levels of participants in the peppermint spirits group were significantly lower than those of participants in the other two groups 2 and 5 minutes after the initial intervention.
CONCLUSIONS:
Peppermint spirits may be a useful adjunct in the treatment of postoperative nausea. This study should be replicated with more participants, using a variety of aromatherapies to treat nausea in participants with different preoperative diagnoses.

Nausea and vomiting of pregnancy

The effect of lemon inhalation aromatherapy on nausea and vomiting of pregnancy: a double-blinded, randomized, controlled clinical trial.
Iran Red Crescent Med J. 2014 Mar;16(3):e14360. doi: 10.5812/ircmj.14360. Epub 2014 Mar 5.
Yavari Kia P[1], Safajou F[1], Shahnazi M[1], Nazemiyeh H[2].
Abstract
BACKGROUND:
Nausea and vomiting of pregnancy are amongst the most common complaints that effects on both the physical and mental conditions of the pregnant women. Due to the increasing tendency of women to use herbal medications during pregnancy, the effect of lemon inhalation aromatherapy on nausea and vomiting of pregnancy was investigated in this study.
OBJECTIVES:
The aim of this study was to determine the effect of lemon inhalation aromatherapy on nausea and vomiting during pregnancy.
MATERIALS AND METHODS:
This was a randomized clinical trial in which 100 pregnant women with nausea and vomiting who had eligibility criteria were randomly divided into intervention and control groups based on four- and six-random block sampling method. Lemon essential oil and placebo were given to the intervention and control groups, respectively, to inhale it as soon as they felt nausea. The nausea, vomiting, and retch intensity were investigated 24 hours before and during the four days of treatment by means of PUQE-24 (24-hour Pregnancy Unique Quantification of Emesis).
RESULTS:
There was a statistically significant difference between the two groups in the mean scores of nausea and vomiting on the second and fourth days ($P = 0.017$ and $P = 0.039$, respectively). The means of nausea and vomiting intensity in the second and fourth days in the intervention group were significantly lower than the control group. In addition, in intragroup comparison with ANOVA with repeated measures, the nausea and vomiting

mean in the five intervals, showed a statistically significant difference in each group (P < 0.001 and P = 0.049, respectively).
CONCLUSIONS:
Lemon scent can be effective in reducing nausea and vomiting of pregnancy.

Study of the effect of mint oil on nausea and vomiting during pregnancy.
Iran Red Crescent Med J. 2012 Nov;14(11):727-30. doi: 10.5812/ircmj.3477. Epub 2012 Nov 15.
Pasha H[1], Behmanesh F, Mohsenzadeh F, Hajahmadi M, Moghadamnia AA.
Abstract
BACKGROUND:
Approximately 80 percent of pregnant women suffer by some degree of nausea and vomiting. But the treatment of nausea and vomiting of pregnancy is rarely successful.
OBJECTIVES:
The aim of this study was evaluation the effect of mint on nausea and vomiting during pregnancy that its treatment in some recent research has been effective.
MATERIALS AND METHODS:
In this double blind RCT, 60 pregnant women with nausea and vomiting of pregnancy were sampled and divided into two groups with Block-randomized method. mint group, in addition to giving the routine training, for four consecutive nights, before sleeping, a bowel of water whit four drops of pure mint essential oil placed on the floor near their beds and in control groups were used four drops of normal saline . The severity of nausea by using Visual Analog Scale (VAS) and severity of vomiting by counting the number of its in 7 days prior, 4 days during, and 7 days after intervention were assessed.
RESULTS:
The results showed that the severity of nausea and vomiting did not differ between the two groups in 7days before and after intervention by using repeated measurement test. But during intervention, the severity of nausea showed a decreasing trend (especially in 4th night) in the mint and an increasing trend in the control group. The severity of nausea within 7 days after the intervention had a decreasing trend in both groups; however, the intensity was lower in the mint than saline group but not statically significant. No meaningful relationship has been detected during and after intervention for the intensity of vomiting.
CONCLUSIONS:
The results of study showed that peppermint essential oil hasn't the effect on nausea and vomiting of pregnancy.

Ginger as herb for nausea

Effect of ginger on acute and delayed chemotherapy-induced nausea and vomiting: a pilot, randomized, open-label clinical trial.
Integr Cancer Ther. 2012 Sep;11(3):204-11. doi: 10.1177/1534735411433201. Epub 2012 Feb 7.
Panahi Y[1], Saadat A, Sahebkar A, Hashemian F, Taghikhani M, Abolhasani E.

Abstract
BACKGROUND:
Nausea and vomiting are among the most prevalent and disturbing side effects of chemotherapy. Therefore, there is a need for additional antiemetic agents that could effectively reduce chemotherapy-induced nausea and vomiting (CINV), whether alone or in combination with current standard therapies. Since clinical data on the effectiveness of ginger in patients with advanced breast cancer is lacking, the present study aimed to evaluate the effects of ginger against both acute and delayed forms of CINV in a population with advanced breast cancer as the main malignancy.
METHODS:
In this pilot, randomized, open-label clinical trial, 100 women (mean age = 51.83 ± 9.18 years) with advanced breast cancer who were initially assigned to standard chemotherapy protocol with docetaxel, epirubicin, and cyclophosphamide (the TEC regimen) were randomized to receive ginger (1.5 g/d in 3 divided doses every 8 hours) plus standard antiemetic regimen (granisetron plus dexamethasone; the ginger group) or standard antiemetic regimen alone (control group). The duration of treatment with ginger was specified to 4 days from the initiation of chemotherapy. Prevalence, score, and severity of nausea, vomiting, and retching were assessed using a simplified form of Rhodes index in the first 6 hours, between 6 to 24 hours, and days 2, 3, and 4 postchemotherapy.
RESULTS:
A significantly lower prevalence of nausea was observed in the ginger group during 6 to 24 hours postchemotherapy. Despite this effect, no other significant additional benefit from ginger (1.5 g/d) was observed against prevalence or severity of nausea, vomiting, and retching in any of the assessed periods.
CONCLUSION:
Addition of ginger (1.5 g/d) to standard antiemetic therapy (granisetron plus dexamethasone) in patients with advanced breast cancer effectively reduces the prevalence of nausea 6 to 24 hours postchemotherapy. However, there is no other additional advantage for ginger in reducing prevalence or severity of acute or delayed CINV.

Effectiveness of ginger for prevention of nausea and vomiting after gynecological laparoscopy.
J Med Assoc Thai. 2006 Dec;89(12):2003-9.
Apariman S[1], Ratchanon S, Wiriyasirivej B.
Abstract
OBJECTIVE:
To study the effectiveness of ginger for prevention of nausea and vomiting after gynecological laparoscopy.
MATERIAL AND METHOD:
From July 2005 to October 2005, 60 inpatients who underwent laparoscopic operations for non-cancer gynecologic conditions at Bangkok Metropolitan Administration Medical College or Vajira Hospital were randomized into Group A (n = 30) or Group B (n = 30). Group A received 3 capsules of ginger (1 capsule contained 0.5 g of ginger powder) while Group B received 3 capsules of placebo. Both groups received their medicine 1 hour prior

the operation. Nausea and vomiting were assessed with the Visual Analogue Scores (VAS) and presence of vomiting at 2 and 6 hours after the operation.

RESULTS:

Median VAS at 2 hours post operation of Group A was not significantly different from that of Group B with the median of 0 (range, 0-5.4) and 0.15 (range, 0-10) respectively (95% CI from -2.59 to 0.90 and p = 0.142). At 6 hours post operation, the median VAS of Group A was significantly lower than group B, 0.55 (range, 0-7.4) versus 2.80 (range, 0-10) (95% CI from -3.61 to -0.73 and p = 0.015). Presence of vomiting at 2 hours was not different between the two groups, 10% in Group A and 20% in Group B (95% CI from -28% to 8% and p = 0.278). At 6 hours, 23.3% of group A had an episode of vomiting compared to 46.7% of group B (95% CI from -47% to 1% and p = 0.058).

CONCLUSION:

Ginger has shown efficacy for prevention of nausea and borderline significance to prevention vomiting after gynecological laparoscopy at 6 hour post operation.

Peppermint oil and IBS

Efficacy of Peppermint oil in diarrhea predominant IBS - a double blind randomized placebo - controlled study.

Mymensingh Med J. 2013 Jan;22(1):27-30.

Alam MS[1], Roy PK, Miah AR, Mollick SH, Khan MR, Mahmud MC, Khatun S.

Abstract

Irritable bowel syndrome (IBS) is one of the most common functional gastrointestinal disorder which is associated with considerable sufferings of patient and Peppermint oil is volatile oil, its active principle is menthol-contain a cyclic monoterpine which has anti-spasmotic properties due to its ability to block calcium channel of intestinal smooth muscles. This study observed the efficacy of peppermint oil for relieving the symptoms and changes of quality of life (QOL) in diarrhea predominant IBS. This was a prospective double blind randomized placebo-controlled study conducted in the Bangabandhu Sheikh Mujib Medical University during July 2008 to September 2009. Patients who fulfilled ROME II were initially selected but those had red flag signs or any organic disease was excluded from the study. Seventy four patients were enrolled in the study and randomly allocated to receive either peppermint oil or placebo three times daily for six weeks. Changes of symptoms were assessed three week interval during treatment and two weeks after the end of treatment. Data were analyzed by paired and unpaired 't' test. Finally sixty five patients completed the trial. It was observed that, at six weeks of therapy abdominal pain is markedly improved (mean±SD) 4.94±1.30 in peppermint oil group compared with 6.15±1.24 in placebo group and the difference was statistically highly significant (p>0.001). But two weeks after end of trials pain score again increased (6.09±1.93). Other symptoms and quality of life did not improve significantly. So the study result concludes that peppermint oil is effective in reliving only abdominal pain in diarrhea predominant IBS transiently.

Peppermint oil (Mintoil) in the treatment of irritable bowel syndrome: a prospective double blind placebo-controlled randomized trial.

Dig Liver Dis. 2007 Jun;39(6):530-6. Epub 2007 Apr 8.
Cappello G[1], Spezzaferro M, Grossi L, Manzoli L, Marzio L.
Abstract

INTRODUCTION:

The use of peppermint oil in treating the irritable bowel syndrome has been studied with variable results probably due to the presence of patients affected by small intestinal bacterial overgrowth, lactose intolerance or celiac disease that may have symptoms similar to irritable bowel syndrome.

AIM:

The aim of the study was to test the effectiveness of enteric-coated peppermint oil in patients with irritable bowel syndrome in whom small intestinal bacterial overgrowth, lactose intolerance and celiac disease were excluded.

METHODS:

Fifty-seven patients with irritable bowel syndrome according to the Rome II criteria, with normal lactose and lactulose breath tests and negative antibody screening for celiac disease, were treated with peppermint oil (two enteric-coated capsules twice per day or placebo) for 4 weeks in a double blind study. The symptoms were assessed before therapy (T(0)), after the first 4 weeks of therapy (T(4)) and 4 weeks after the end of therapy (T(8)). The symptoms evaluated were: abdominal bloating, abdominal pain or discomfort, diarrhoea, constipation, feeling of incomplete evacuation, pain at defecation, passage of gas or mucus and urgency at defecation. For each symptom intensity and frequency from 0 to 4 were scored. The total irritable bowel syndrome symptoms score was also calculated as the mean value of the sum of the average of the intensity and frequency scores of each symptom.

RESULTS:

At T(4), 75% of the patients in the peppermint oil group showed a >50% reduction of basal (T(0)) total irritable bowel syndrome symptoms score compared with 38% in the placebo group (P<0.009). With peppermint oil at T(4) and at T(8) compared with T(0) a statistically significant reduction of the total irritable bowel syndrome symptoms score was found (T(0): 2.19+/-0.13, T(4): 1.07+/-0.10*, T(8): 1.60+/-0.10*, *P<0.01 compared with T(0), mean+/-S.E.M.), while no change was found with the placebo.

CONCLUSION:

A 4 weeks treatment with peppermint oil improves abdominal symptoms in patients with irritable bowel syndrome.

The effect of enteric-coated, delayed-release peppermint oil on irritable bowel syndrome.

Dig Dis Sci. 2010 May;55(5):1385-90. doi: 10.1007/s10620-009-0854-9. Epub 2009 Jun 9.
Merat S[1], Khalili S, Mostajabi P, Ghorbani A, Ansari R, Malekzadeh R.
Abstract

Herbal remedies, particularly peppermint, have been reported to be helpful in controlling symptoms of irritable bowel syndrome (IBS). We conducted a randomized double-blind placebo-controlled study on 90 outpatients with IBS. Subjects took one capsule of enteric-coated, delayed-release peppermint oil (Colpermin) or placebo three times daily for 8 weeks. We visited patients after the first, fourth, and eighth weeks and evaluated their

symptoms and quality of life. The number of subjects free from abdominal pain or discomfort changed from 0 at week 0 to 14 at week 8 in the Colpermin group and from 0 to 6 in controls ($P < 0.001$). The severity of abdominal pain was also reduced significantly in the Colpermin group as compared to controls. Furthermore, Colpermin significantly improved the quality of life. There was no significant adverse reaction. Colpermin is effective and safe as a therapeutic agent in patients with IBS suffering from abdominal pain or discomfort.

Enteric-coated peppermint-oil capsules in the treatment of irritable bowel syndrome: a prospective, randomized trial.

J Gastroenterol. 1997 Dec;32(6):765-8.Liu JH[1], Chen GH, Yeh HZ, Huang CK, Poon SK.

Abstract

To determine the efficacy and tolerability of an enteric-coated peppermint-oil formulation (Colpermin), we conducted a prospective, randomized, double-blind, placebo-controlled clinical study in 110 outpatients (66 men/44 women; 18-70 years of age) with symptoms of irritable bowel syndrome. Patients took one capsule (Colpermin or placebo) three to four times daily, 15-30 min before meals, for 1 month. Fifty-two patients on Colpermin and 49 on placebo completed the study. Forty-one patients on Colpermin (79%) experienced an alleviation of the severity of abdominal pain (29 were pain-free); 43 (83%) had less abdominal distension, 43 (83%) had reduced stool frequency, 38 (73%) had fewer borborygmi, and 41 (79%) less flatulence. Corresponding figures for the placebo group were: 21 patients (43%) with reduced pain (4 were pain-free), 14 (29%) with reduced distension, 16 (32%) with reduced stool frequency, 15 (31%) with fewer borborygmi, and 11 (22%) with less flatulence. Symptom improvements after Colpermin were significantly better than after placebo ($P < 0.05$; Mann-Whitney U-test). One patient on Colpermin experienced heartburn (because of chewing the capsules) and one developed a mild transient skin rash. There were no significant changes in liver function test results. Thus, in this trial, Colpermin was effective and well tolerated.

Aromatic herbs for IBS

Comparison of the antibacterial activity of essential oils and extracts of medicinal and culinary herbs to investigate potential new treatments for irritable bowel syndrome.

BMC Complement Altern Med. 2013 Nov 28;13:338. doi: 10.1186/1472-6882-13-338.
Thompson A[1], Meah D, Ahmed N, Conniff-Jenkins R, Chileshe E, Phillips CO, Claypole TC, Forman DW, Row PE.

Abstract

BACKGROUND:

Irritable bowel syndrome (IBS) is a common functional gastrointestinal disorder, which may result from alteration of the gastrointestinal microbiota following gastrointestinal infection, or with intestinal dysbiosis or small intestinal bacterial overgrowth. This may be treated with antibiotics, but there is concern that widespread antibiotic use might lead to

antibiotic resistance. Some herbal medicines have been shown to be beneficial, but their mechanism(s) of action remain incompletely understood. To try to understand whether antibacterial properties might be involved in the efficacy of these herbal medicines, and to investigate potential new treatments for IBS, we have conducted a preliminary study in vitro to compare the antibacterial activity of the essential oils of culinary and medicinal herbs against the bacterium, Esherichia coli.

METHODS:

Essential oils were tested for their ability to inhibit E. coli growth in disc diffusion assays and in liquid culture, and to kill E. coli in a zone of clearance assay. Extracts of coriander, lemon balm and spearmint leaves were tested for their antibacterial activity in the disc diffusion assay. Disc diffusion and zone of clearance assays were analysed by two-tailed t tests whereas ANOVA was performed for the turbidometric assays.

RESULTS:

Most of the oils exhibited antibacterial activity in all three assays, however peppermint, lemon balm and coriander seed oils were most potent, with peppermint and coriander seed oils being more potent than the antibiotic rifaximin in the disc diffusion assay. The compounds present in these oils were identified by gas chromatography mass spectrometry. Finally, extracts were made of spearmint, lemon balm and coriander leaves with various solvents and these were tested for their antibacterial activity against E. coli in the disc diffusion assay. In each case, extracts made with ethanol and methanol exhibited potent antibacterial activity.

CONCLUSIONS:

Many of the essential oils had antibacterial activity in the three assays, suggesting that they would be good candidates for testing in clinical trials. The observed antibacterial activity of ethanolic extracts of coriander, lemon balm and spearmint leaves suggests a mechanistic explanation for the efficacy of a mixture of coriander, lemon balm and mint extracts against IBS in a published clinical trial.

Aromatherapy massage for constipation

[Effects of abdominal meridian massage with aroma oils on relief of constipation among hospitalized children with brain related disabilities].

J Korean Acad Nurs. 2013 Apr;43(2):247-55. doi: 10.4040/jkan.2013.43.2.247.

Nam MJ[1], Bang YIe, Kim TI.

Abstract

PURPOSE:

This study was done to evaluate the effects of 3 times/week and 5 times/week abdominal meridian massage with aroma oils (AMMAO) on the relief of constipation among hospitalized children with disabilities involving the brain lesions (cerebral palsy, epilepsy, and others).

METHODS:

The participants were 33 hospitalized children with a disability involving the brain (15 were in the 5 times/week of AMMAO group and 18 were in the 3 times/week of AMMAO group). Data were collected from March 21 to May 1, 2011. Chi-square test, t-test, and repeated measures ANOVA with SPSS 18.0 were used to evaluate the effects of AMMAO.

RESULTS:
While there was no significant difference between the two groups, there was a significant difference within groups between baseline and the end of the intervention period for the following, frequency of suppository use or enemas, amount of stool, and number of bowel movements.
CONCLUSION:
The results of this study indicate that AMMAO is an effective nursing intervention in relief of constipation for hospitalized children with a disability involving the brain. Therefore it is recommended that AMMAO be used in clinical practice as an effective nursing intervention for relief of constipation to these children.

[A comparison between effects of aroma massage and meridian massage on constipation and stress in women college students].
J Korean Acad Nurs. 2011 Feb;41(1):26-35. doi: 10.4040/jkan.2011.41.1.26.
Chung M[1], Choi E.
Abstract
PURPOSE:
This study was done to compare the effects of abdominal aroma massage and meridian massage on constipation and stress in college women with functional constipation.
METHODS:
The participants were 38 college women, 18 were in the aroma group and 20 in the meridian group. The aroma massage was given using aroma oil which was a mixture of lemon, lavender, rosemary, and cyprus. The meridian massage was given at 9 accupoints which influence intestinal functions. The treatment was given 5 days a week for 4 weeks. A constipation severity score, weekly defecation frequency, and a stress response score were measured before and every week of 4 weeks of the experiment.
RESULTS:
While there was no significant difference between two groups, there was a significant difference within the groups in the constipation severity (aroma group: 1st week, meridian group: except 4th week), defecation frequency (aroma group: 3rd week, meridian group: 2nd and 3rd week), and stress (aroma group: all weeks, meridian group: except 4th week) after different duration of experiment.
CONCLUSION:
Based on these results, both abdominal massages relieved constipation and stress. Resorting to either types of massage will contribute to the reduction of use of stool softeners, suppositories, or enemas.

Effectiveness of aroma massage on advanced cancer patients with constipation: a pilot study.
Complement Ther Clin Pract. 2011 Feb;17(1):37-43. doi: 10.1016/j.ctcp.2010.02.004. Epub 2010 Jun 12.
Lai TK[1], Cheung MC, Lo CK, Ng KL, Fung YH, Tong M, Yau CC.
Abstract
PURPOSE:

The purpose of this study was to verify the effect of aroma massage on constipation in advanced cancer patients.

METHODS:

This study employed a randomized control group pre- and post test design and included an aroma massage group, plain massage group, and control group. To evaluate the effect of aromatherapy, the degree of constipation was measured using a constipation assessment scale, severity level of constipation and the frequency of bowel movements. Data was analyzed by repeated measures of Mann-Whitney U test, Wilcoxon signed ranks test, Spearman's rho and ANOVA using SPSS program.

RESULTS:

The score of the constipation assessment scale of the aroma massage group was significantly lower than the control group. Apart from the improvement in bowel movements, the results showed significantly improved quality of life in physical and support domains of the aroma massage group.

CONCLUSION:

The findings of this study suggest aroma massage can help to relieve constipation in patients with advanced cancer.

[Effect of aromatherapy massage for the relief of constipation in the elderly].

Taehan Kanho Hakhoe Chi. 2005 Feb;35(1):56-64.

Kim MA[1], Sakong JK, Kim EJ, Kim EH, Kim EH.

Abstract

PURPOSE:

The purpose of this study was to verify the effect of aromatherapy massage on constipation in the elderly.

METHOD:

This study for 10 day, employed a randomized control group pretest-posttest design. The experimental group received abdominal massage using essential oils with Rosemary, Lemon, and Peppermint, and the control group received a placebo massage. To evaluate the effect of aromatherapy, the degree of constipation was measured using the CAS(constipation assessment scale) and the number of bowel movements per week. Data was analyzed by repeated measures of ANOVA using the SPSS program.

RESULT:

The score of CAS of the experimental group was significantly lower than that of the control group. In addition the average number of bowel movements in the experimental group was higher than that of the control group. The effect of aromatherapy lasted 2 weeks after treatment, while the placebo effect lasted 7-10 days after treatment.

CONCLUSION:

The finding of this study showed that aromatherapy helps relieve constipation in the elderly.

[Effect of aromatherapy massage on abdominal fat and body image in post-menopausal women].

Taehan Kanho Hakhoe Chi. 2007 Jun;37(4):603-12.

Kim HJ[1].

Abstract

PURPOSE:

The purpose of this study was to verify the effect of aromatherapy massage on abdominal fat and body image in post-menopausal women.

METHOD:

A Non-equivalent control group pre-post test Quasi-experimental design of random assignment was applied. All subjects received one hour of whole body massage as treatment by the same researcher every week for 6 weeks. Participants also massaged their own abdomen two times everyday for 5 days each week for 6 weeks. The two groups used different kinds of oil. The experimental group used 3% grapefruit oil, cypress and three other kinds of oil. The control group used grapeseed oil. Data was collected before and after the treatment using Siemens Somatom Sensation 4, a tape measure and MBSRQ. Data was analyzed by ANCOVA using the SPSS/PC+Win 12 Version.

RESULT:

Abdominal subcutaneous fat and waist circumference in the experimental group significantly decreased after aromatherapy massage compared to the control group. Body image in the experimental group was significantly better after aromatherapy massage than in the control group.

CONCLUSION:

These results suggest that Aromatherapy massage could be utilized as an effective intervention to reduce abdominal subcutaneous fat, waist circumference, and to improve body image in post-menopausal women.