

Ginger Nature’s Cure for Post Operative Nausea and Vomiting

Dr Andrea Myers, Dr Patrick Toppin , Dr Hyacinth Harding, Dr Charles Oliver

The University of the West Indies Mona, Jamaica



Background

Postoperative nausea and vomiting (PONV) is nausea, vomiting or retching in the first 24 hours after surgery.

PONV is a persistent problem that continues to plague patients who undergo anaesthesia with the incidence as high as 30 %(1, 2).

PONV may result in worsened patient outcomes, lengthened hospital stays and increased cost of health care.

Ginger is cheap, widely available, and may be an attractive adjunct especially in developing countries, where budgetary constraint often results in shortages in basic medications.

Ginger has been shown to have some success in reducing the incidence of nausea and vomiting in pregnant patients and those receiving chemotherapy(3, 4).

Small studies suggest that ginger it may be useful in preventing PONV(5).

Methods:

This was a double-blind, randomized controlled trial.

110 participants were randomized to one of two groups using a computer based random numbers generator.

The participants were patients who were 18 years and older and scheduled for intra-abdominal gynecological surgery under general anaesthesia.

The intervention group was given capsules containing 1 gram of ginger, while the placebo group received1gram of cornstarch prior to surgery.

The participants received standardized anaesthesia and were assessed for nausea and vomiting in recovery and at 12-, 24- and 28-hours post-surgery.

Results:

Figure 1: Distribution of surgical procedures

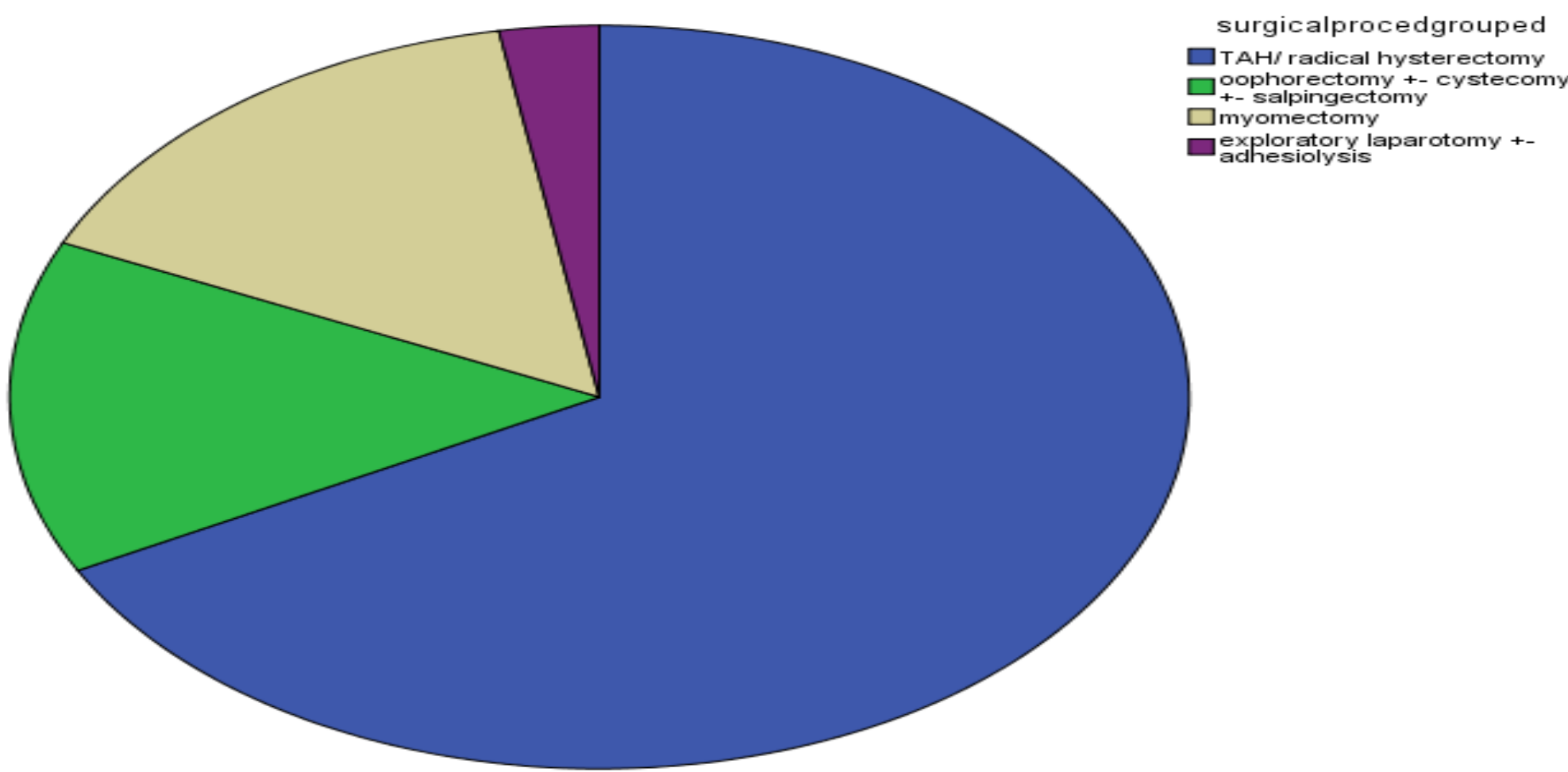
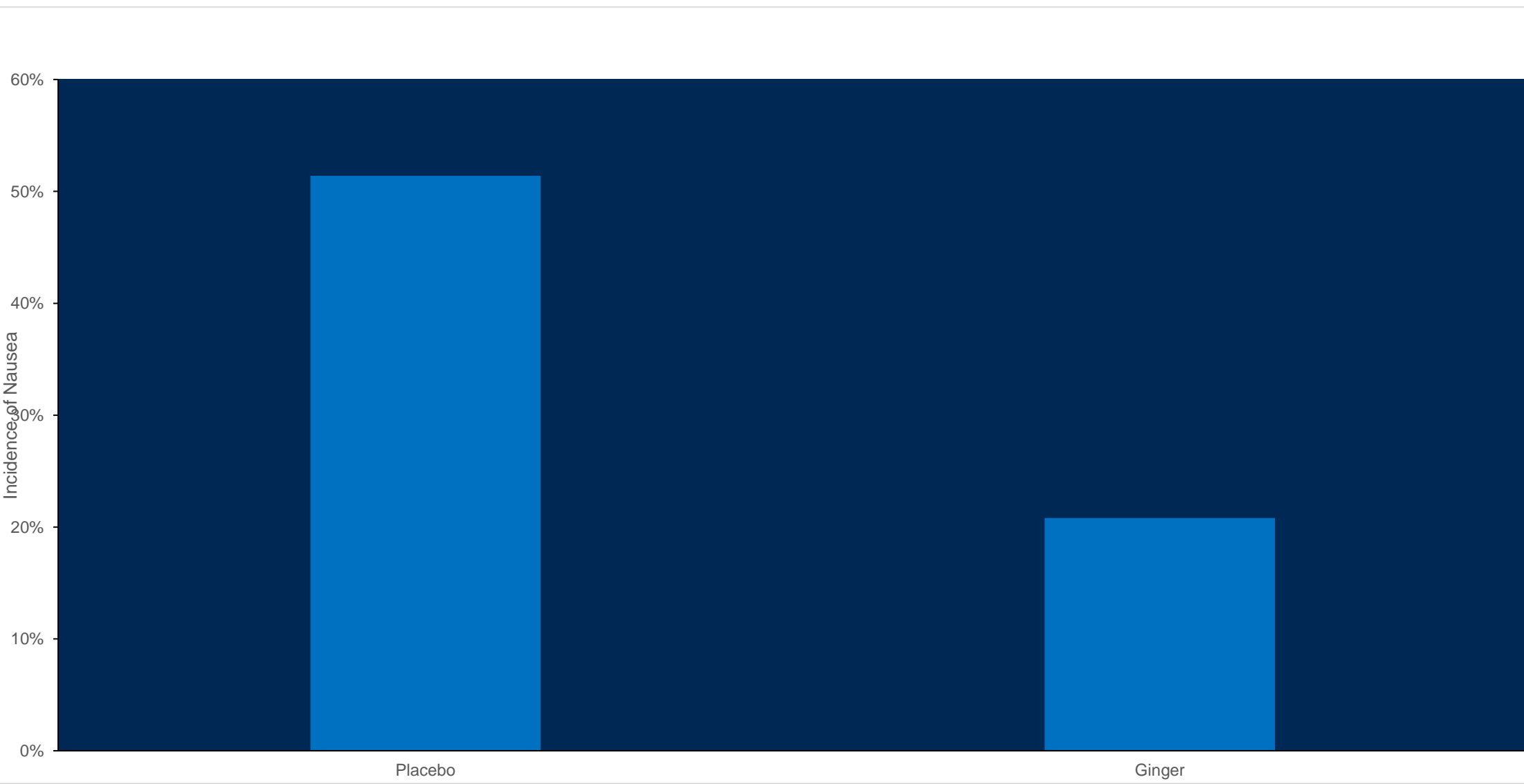


Table 1: Comparison of Rhodes Index Scores in placebo versus ginger study groups at 12, 24 and 28 hours

		12 Hours	24 Hours	48 Hours
Placebo	Mean Score	3.7	2.8	1.2
	Max Score	24	19	25
Ginger	Mean Score	3.2	1.8	0.7
	Max Score	28	11	9
	P value	0.23	0.32	0.5

Figure 2: The incidence of nausea at 12 hours in patients who received intervention two hours or more before induction.



Results

Total abdominal and radical hysterectomies made up 67.3% of surgeries. There was no difference between types of surgeries in the 2 groups P= 0.32 (figure1)

The highest incidence of vomiting occurred at 12-hours post-surgery 23.6% with no statistical difference in outcomes p = 0.82.

The highest incidence of nausea was at 12 hours post-surgery 41.8% of all participants, the placebo group had an incidence of 49.1% compared to 37.3% in the ginger group

Patient who received ginger 2 hours or more before induction of anaesthesia had a reduced incidence of nausea 51.4% versus 20.8% p= 0.029 (figure 2).

There was no statistical difference in mean scores of nausea and vomiting in the overall study population (table 1).

Conclusions

Ginger may reduce the incidence of nausea at 12 hours post-surgery, if given 2 hours or more before anaesthesia.

Ginger was not found to be useful in the overall prevention of PONV.

References

- 1.Tennant I, Augier R, Crawford-Sykes A, Ferron-Boothe D, Meeks-Aitken N, Jones K, et al. Minor postoperative complications related to anesthesia in elective gynecological and orthopedic surgical patients at a teaching hospital in Kingston, Jamaica. Rev Bras Anesthesiol. 2012;62(2):188-98.
- 2.Kranke P, Eberhart LH. Possibilities and limitations in the pharmacological management of postoperative nausea and vomiting. Eur J Anaesthesiol. 2011;28(11):758-65.
- 3.Ryan JL, Heckler CE, Roscoe JA, Dakhil SR, Kirshner J, Flynn PJ, et al. Ginger (Zingiber officinale) reduces acute chemotherapy-induced nausea: a URCC CCOP study of 576 patients. Support Care Cancer. 2012;20(7):1479-89.
- 4.Borrelli F, Capasso R, Aviello G, Pittler MH, Izzo AA. Effectiveness and safety of ginger in the treatment of pregnancy-induced nausea and vomiting. Obstet Gynecol. 2005;105(4):849-56.
- 5.Pongroj paw D, Chiamchanya C. The efficacy of ginger in prevention of post-operative nausea and vomiting after outpatient gynecological laparoscopy. J Med Assoc Thai. 2003;86(3):244-50.