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Adjuvant effect of *Zingiber Officinale L.* in cancer patients

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Abstract The *Zingiber officinale* popularly known as ginger or mangarataia, since antiquities is widely used for therapeutic and culinary purposes. Popularly used in infusions against colds, juices with fruits, in cooking in crystallized pieces, dehydrated, dried or powdered. The objective of this study is to discuss the use of the same as an adjuvant treatment in the control of emesis and nausea of cancer patients under treatment. The mechanism of action of ginger responsible for the antiemetic activity, is not yet clear. Ginger has volatile oils, such as shogaol and gingerol which are its active chemical constituents. Studies in rats showed direct effect on the gastrointestinal tract and action on the Central Nervous System. Emesis and nausea are the main effects induced by cytotoxic drugs. According to reports in the literature, ginger has a promising antiemetic action as adjuvant therapy in cancer patients, bringing about the reduction of these symptoms and still acting with other beneficial effects such as anti-inflammatory, antioxidant, antimicrobial, anticoagulant, hypolipidemic and hypoglycemic. Its ideal use is in therapeutic doses recommended according to each patient profile and for limited periods, it would also enable the reduction of other conventional drugs, both the use of several drugs by the patient, as well as bring positive financial reflexes for the company. From this study we can observe the beneficial action of the use of medicinal plants, and may also emphasize the importance of investing in further studies and clinical trials, since there is no ginger-based medicine on the market.

Keywords: Ginger; ginger and cancer; antiemetic effects.

1. Introduction

Chemotherapy is a method used with cytotoxic drugs aimed at the treatment of biological diseases like cancer. There are more than 100 types of cancer and treatment, although effective, causes several adverse effects to patients. One of the most prevalent effects is the incidence of emesis and nausea. In order to gain control of these events,

patients undergo more drug treatment before chemotherapy infusions, and often the emesis and nausea are so intense that many patients find it difficult to adhere to treatment. Ginger is an herbaceous plant that has several properties, rich in phenolic compounds and terpenoids, ginger has always been used for various medicinal purposes and is until the present day.

2. Results and Discussion

For adjuvant therapy to cancer treatment ginger has an antiemetic action where it acts in the gastrointestinal tract peripherally, increasing tone and gastric motility, and gastric emptying,

through its anticholinergic and antiserotonergic action. The mechanism of action is not yet fully understood. Ginger has volatile oils like gingerol and shogaol that are its chemical constituents that act against emeses and nauseas.

3. Materials and Methods

Five articles of the literature were used for study. Two contained tests where reports were

found where 0.5 to 1 g of ginger were used daily where it resulted in benefit to oncology patients.

4. Conclusions

With this we can observe the great potential against emesis and nausea of ginger where more studies should be dedicated to the emergence of new herbal medicines.

Conflicts of Interest

The authors declare no conflict of interest in this paper.

References and Notes

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