Preparation of a pharmaceutical form of ginger rhizome on Iranian
traditional medicine to relieve nausea caused by chemotherapy

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Abstract:

Background and Purpose: Rhizome of Zingiber officinale Roscoe (Zingiberaceae) is used in the most parts of the world for healing of different disorders, including digestive problems and inflammatory inconvenience such as Osteoarthritis. Gingerol is present in the fresh rhizome, but in drying process of rhizome it changed to shogaol which both have antinausea effect. The aim of this study is planning a new formulation of ginger based on Iranian traditional medicine for removal of nausea in patients with complications of chemotherapy and standardization of product based on 6-gingerol and definition of expiration date of product.

Material and Methods: on December of 2011, 20 kg of fresh rhizome of ginger was purchased from the Tehran market. After determining of the scientific name, the rhizomes were cut to pieces and dried in laboratory conditions, 1 kg of dry ginger was obtained. Powdered rhizome was extracted by maceration method using ethanol as solvent, after evaporation 100 g of oily extract was obtained. Capsule number zero was filled according to the formulation after mixing of ingredients. Stability examinations were carried out under specified conditions.

Results: Percentage of 6-gingerol in extract was 14% in March 2012, which it was equal to 1.27 mg 6-gingerol in each 500mg capsule, but on May 2012, there were 0.7 mg of 6-gingerol in the drug.

Conclusion: Based on calculations and data processing in conditions of aggravated temperature, expiration date could not be determined for this new product. Therefore more examinations are required for shogaol determination and further clinical trials are needed for evaluation of this new formula.

Keywords: Ginger, 6-gingerol, 6-shogaol, quince fruit, antinausea, chemotherapy.

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