Effects of honey with Nigella sativa mixture on Radiation-induced Diarrhea

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Abstract:

Background and Purpose: Diarrhea is a well-recognized side effect associated with pelvic radiotherapy. The change in the intestinal bacterial flora and increased permeability of mucous cells may cause radiation-induced diarrhea. In this research the effects of honey with Nigella sativa mixture against radiation-induced diarrhea are evaluated. Honey is a putative nutritional with a variety of health effects, including antibacterial, antioxidant, anti-inflammatory and prebiotic. Seed of Nigella sativa commonly known as black seed which is used in folk medicine in the Middle East such as Iran for the promotion of good health and the treatment of a variety of ailments including Asthma, headaches, some infections, hypertension and gastrointestinal disorders such as diarrhea.

Materials and Methods: Forty-one adult patients with pelvic cancer were treated with pelvic radiotherapy for 5 weeks and randomized to receive honey with Nigella sativa mixture (30gr honey and 3gr Nigella sativa powdered in every day) (n = 17) or placebo capsules (n = 24). Diarrhea grade was recorded weekly according to the Common Toxicity Criteria system and scored the stool consistency grade using the Bristol scales.

Results: Consumption of honey with Nigella sativa mixture was found to have a significant effect in decreasing in daily number of bowel movements (P = 0.004) and diarrhea grade (in fourth and fifth week; p = 0.001 and p = 0.002 respectively) and also increasing in the stool consistency (in fourth and fifth week; p = 0.005 and p = 0.015 respectively) in the patient when compared to the controls. The antidiarrheal drug necessity was observed in patients in the honey with Nigella sativa mixture group significantly less than the placebo group (p = 0.028) during the treatment.

Conclusion: It seems that honey with Nigella sativa mixture can reduce the incidence of radiation-induced diarrhea and the need for anti-diarrheal medication.

Keywords: Honey, Nigella Sativa, Diarrhea, Radiotherapy, Pelvic cancer.

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