

عنوان مقاله:

The Effect of Oral Selenium on Radiotherapy Induced Mucositis in Patients with Head and Neck Cancer : a Pilot double-blind study

محل انتشار:

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خلاصه مقاله:

**Background & Aims:** The purpose of this study was to evaluate the efficacy of oral selenium in alleviation of oral mucositis induced by radiotherapy in head and neck cancer patients. **Methods:** In a randomized double blind pilot study, 35 patients under radiotherapy, due to primary tumors localized in the head or neck, who had at least two oral sites were studied. They were randomly divided into the treatment group (oral selenium 400 mcg/day) and placebo group. The intervention started one day before radiotherapy and continued for three weeks after the end of the treatment. Mucosal evaluation was done every week during the course of radiotherapy. NCI-CTC (version 2) grading system and Epstein scoring system were used for the assessment of mucositis. Oral cavity was divided into the 14 anatomical sites and relevant sites were examined weekly. Based on the degree of mucositis, each site was scored using 4-point scale and then mean mucositis score was calculated. **Results:** In whole, 35 patients were enrolled into the study. Mean score of mucositis in selenium group was less than placebo group in the first, second and third weeks (respectively,  $0.51 \pm 0.28$ ,  $1.25 \pm 0.55$  and  $1.75 \pm 0.34$  in the selenium group and  $1.21 \pm 0.81$ ,  $1.79 \pm 0.43$ ,  $2.08 \pm 0.46$  in the placebo group). Repeated measure ANOVA analysis revealed significant increase in mucositis ( $p=0.019$ ) in the placebo group compared to the selenium group. **Conclusion** Results of this study support the hypothesis that oral selenium can be considered as an effective and well-tolerated medication for the prevention of radiation induced oral mucositis.

کلمات کلیدی:

selenium, radiotherapy, Mucositis, oral cavity

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