



QUALITY OF LIFE, QUALITY OF CARE, AND PATIENT SAFETY

## EFFECTIVENESS OF A TAILORED MOISTURIZER ON CHEMOTHERAPY-INDUCED SKIN DRYNESS AMONG BREAST CANCER PATIENTS: DOUBLE-BLIND CONTROLLED CLINICAL TRIAL.

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**Background:** Up to 60% of breast cancer patients with chemotherapy experienced skin dryness due to decreased sebum contents which could be reduce patients' quality of life (QoL).

**Objective:** To evaluate effectiveness of a tailored moisturizer on skin dryness due to chemotherapy among breast cancer patients.

**Materials and Methods:** It is a double-blind randomized controlled trial conducted at the Samsung Comprehensive Cancer Center in Seoul, South Korea from February 2015 to October 2018. Breast cancer patients experiencing skin dryness after 1 cycle of chemotherapy were randomly assigned to 3 groups (A: chemotherapy-induced dryness tailored moisturizer; B: regular moisturizer; and C: no product). Participants of the intervention groups were asked to apply the study product twice per day until 1 month after completion of chemotherapy. Skin dryness, dullness, QoL, and changes in sebum level were assessed at baseline, 3 weeks after randomization and 1 month after completion of chemotherapy.

**Results:** A total 174 patients were randomized to group A (n = 59), B (n = 56) and C (n = 61). After 1 month after completion of chemotherapy, patients of the group A (8.5%) and B (8.9%) were less likely to report severe skin dryness compared to those of C (27.9%,  $P < 0.001$ ). Patients in the group A also reported significantly lower levels of stress due to skin dryness (1.5 vs. 2.8;  $P = 0.01$ ), skin dullness (3.1 vs. 4.6;  $P = 0.012$ ) and better skin





related QoL (2.0 vs. 4.8;  $P < 0.001$ ) than controls. Sebum contents in cheek of the group A was significant less decreased compared to group C.

**Conclusions:** With this double blind randomized clinical trial, we confirm the effectiveness of tailored moisturizer for chemotherapy-induced skin dryness and dullness as well as QoL among breast cancer patients.

