

A Study Regarding the Dermocosmetic Care of Cutaneous Adverse Effects Associated With Chemotherapy among Breast Cancer Patients

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Abstract

Summary

Cutaneous toxicity with chemotherapeutic agents is common. Skin rash (folliculitis) appears in a significant average of patients treated with alkylating agents, anthracyclines, topoisomerase inhibitors and Epidermal Growth Factor Inhibitors (EGFRIs). Chemotherapy-induced alopecia (CIA) regarding scalp, eyebrows and eyelashes is a well-known cause of distress and stressor to patients, especially females. In the current study ten (10) women suffering from breast cancer with axillary lymph node involvement were asked to answer a questionnaire regarding possible aesthetic and dermocosmetic care of cutaneous side effects of oncologic therapy. All the patients had undergone mastectomy (30 % partial and 70 % radical) and were receiving adjuvant chemotherapy. It is interesting that only the 50 % from the patients was aware that could call on an aesthetician and 50% reported that cutaneous adverse effects of chemotherapy played important role for their psychological condition. A percentage of 50% did not know about areola tattoo. In conclusion a collaboration among dermatologists, cosmetologists, aestheticians and nurses is necessary in order to support patients suffering from cutaneous adverse effects caused by chemotherapy.

Keywords: Cutaneous adverse effects, chemotherapy, dermocosmetic care, tattoo.

Introduction

Cutaneous toxicity with chemotherapeutic agents is common. Skin rash (folliculitis) appears in a significant average of patients treated with alkylating agents, anthracyclines, topoisomerase inhibitors and Epidermal Growth Factor Inhibitors (EGFRIs). Dryness of the skin is also observed and has been attributed to an imbalance of stratum corneum that ultimately results in a disruption of skin barrier function. Acneiform exanthema is especially observed with EGFRIs. Chemotherapy-induced alopecia (CIA) regarding scalp, eyebrows and eyelashes is a well-known cause of distress and stressor to patients, especially females. Usually, alopecia is temporary, although permanent chemotherapy-induced alopecia (PCIA) has been reported with docetaxel among squamous cell neck and head cancer cases, bisulfan in acute myelogenous leukemia and etoposide in lung cancer [1,2]. The main method to avoid to some extent CIA regarding scalp has been the decrease of drug delivery to the growing hair follicle. This can be accomplished by temporarily decreasing blood flow with by inducing scalp hypothermia with gel packs in combination with 2% topical minoxidil. However, "scalp hypothermia" is effective in agents with a shorter half-life with rapid clearance of the chemotherapeutic agent and its metabolites [3-5]. Regarding eyebrows many women request tattoos or micropigmentation, which gives a more natural appearance on the face. Micropigmentation is a way that comes from tattooing and allows

the insertion of pigment material under the skin. From a medical point of view, micropigmentation involves overcoming the skin's barrier and therefore carries certain risks of infection since the skin surface is not sterile. Additionally, request nipple areola micropigmentation-tattoos is a recent trend for many women who go through mastectomy and are unable to save their nipples. As a part of our research in anticancer agents and the dermocosmetic treatment of the cutaneous side effects of chemotherapy [6-8], we thought it would be of interest to design a questionnaire study among cancer patients in order to evaluate the level of the appropriate information of the patients regarding the "treatment" that could be given from aestheticians and cosmetologists. The preliminary results of our research are given below.

Study Design

In the current study ten (10) women aged 35-54, suffering from breast cancer with axillary lymph node involvement were asked to answer a questionnaire regarding possible aesthetic and dermocosmetic treatment of cutaneous side effects of oncologic therapy. 60% of the patients suffered from lobular carcinoma and the 40% from porogenous breast cancer. All the patients had undergone mastectomy (30 % partial and 70 % radical) and were receiving adjuvant chemotherapy.

Results

It is interesting that only the 50 % from the patients was aware that could call on an aesthetician. When asked what they would ask the

aesthetician, they answered that they would accept with pleasure and confidence moisturization treatments, anti-stress massage and anti-acne aesthetic care (**Table I**).

Table I: Aesthetic treatments

Answers N=10	Percentage
Tattooing (eye brows, areola)	0
Artificial eyelashes	10
Body/Face moisturization	50
Anti-stress massage	10
Acne aesthetic treatment	30

Regarding the adverse effects of chemotherapy, the 50% of the patients reported the skin adverse effects as the symptoms with the greatest psychological burden among fatigue and mouth ulcer (**Figure 1**). Acne, hair loss and skin dryness were recorded as skin adverse effects. In our study, a percentage of 50% did not know about areola tattoo, and a 50% had been informed but not in detail.

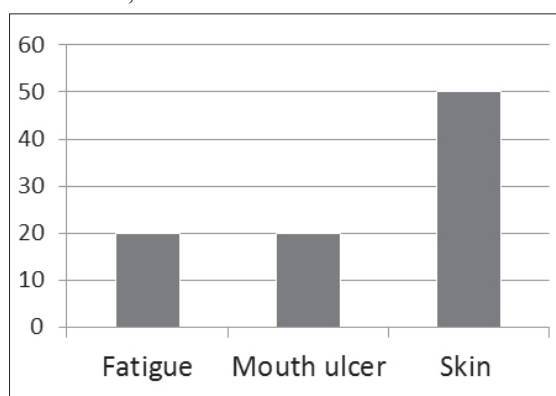


Figure 1: Adverse effects with psychological impact

Conclusion

In our study only the 50 % from the patients was aware that could call on an aesthetician in order to deal with skin adverse effects of chemotherapy, although skin adverse effects seem to play an important role to the psychological condition of the patient. According to the questionnaire, a percentage of 50% did know in detail about nipple areola micropigmentation. As to whether tattoos are safe, particularly on cancer survivors, we just do not know. According to Kluger [9] the possibility of local and systemic effects of carcinogens of tattoo inks still remains unclear. Regarding the local effects, the cases of skin cancers resulting from tattoos described in the literature is very low and such association may be considered to be coincidental [9].

A multidisciplinary approach by dermatologists, cosmetologists, aestheticians and nurses is necessary in order to provide a tailored supportive clinical care to patients suffering from skin adverse effects caused by chemotherapy.

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