

Scalp cooler is effective in reducing chemotherapy-induced alopecia among breast cancer patients: a single institution experience

Authors: E. Gianotti; A. Righi e.gianotti@ausl.mo.it a.righi@ausl.mo.it

Nurses in Unit of Medical Oncology , Ramazzini Hospital Carpi, Local Health Unit Modena, Italy

Background:

Chemotherapy-induced temporary hair loss is one of the most common and distressing side-effects of cancer therapy. Scalp cooling is a long known method to reduce chemotherapy-induced alopecia in cancer patients, especially when anthracycline or taxanes are used. However scalp cooling to reduce hair loss is still a controversial issue.

Results :

The mean overall success rate of scalp cooling (<50% hair loss) was at 62%. In the final results, major hair loss was avoided in 85% patients given taxane treatment, in 79% of patients given FEC treatment and in 32% of patients given AC treatment. None of these patients needed to use a wig and all of them were satisfied about the results at the final evaluation. 87% of the patients considered the avoidance of hair loss to be important before starting the chemotherapy. 12 patients discontinued scalp cooling for side-effects or low compliance.

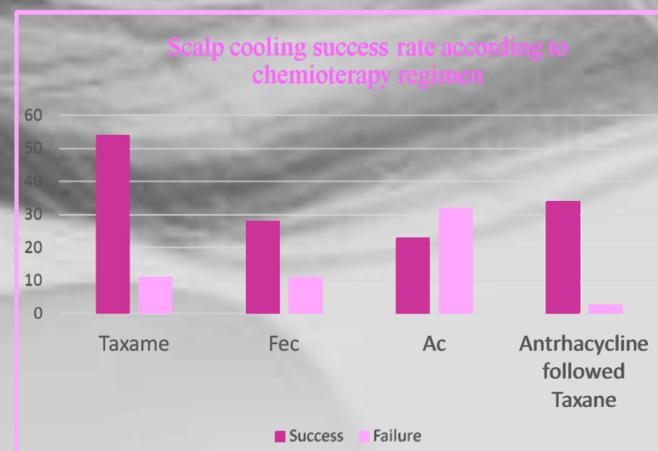
Methods:

We included 210 breast cancer patients receiving chemotherapy both in (neo) adjuvant and palliative setting. Evaluation was focused on the quantification of chemotherapy-induced alopecia (CIA), satisfaction and side effects of the scalp cooling system. The severity of hair loss was assessed according to CTCAE version 4.0 by the nurses team together with the patient. Nurses completed questionnaires on patients baseline characteristics and type of chemotherapy received during each session of scalp-cooling. The following chemotherapeutic treatments were included : doxorubicin alone or in combination with cyclophosphamide (AC); AC followed by paclitaxel; paclitaxel alone; FEC;FEC followed by docetaxel.

Demographic information and baseline characteristics	
Parameter	Participants (n= 210) No. (%)
Age Median (range)	49 (34-66)
Ethnic background	205 (98)
West and south European	
African	2 (1)
Asian	3 (1)
CTCAE* V 4.0 Alopecia Grade 0 at baseline	202 (96)
CTCAE* V 4.0 Alopecia Grade 1 at baseline	8 (4)
Scalp cooling session Median (range)	8 (1-16)

*CTCAE: Common Terminology Criteria for adverse Events

Scalp cooling success rate	
Parameter	Participants No.(%)
Success	123 (62)
Failure	75 (38)
Total	198 (100)



Conclusion:

Nurse team were properly trained and provided with higher experience; a standardized approach was used by the nurse staff for each patient with dedicated time. Our experience showed that scalp cooling provides a good chance for breast cancer patients to keep their hair during anthracyclines and/or taxane containing (neo-)adjuvant chemotherapy and could be integrated into daily practice of chemotherapy unit.