

Lysianne Pereira Alves - Alves, L.P. - Paraibano Center for Oncology - PB - [lysianepereira@gmail.com](mailto:lysianepereira@gmail.com)  
 Isabelle Pimentel Gomes - Gomes, I. P. - Paraibano Center for Oncology - PB - [enfisabelle@yahoo.com.br](mailto:enfisabelle@yahoo.com.br)  
 Juliana Góes Martins Fagundes - Martins, J. G. - Paraibano Center for Oncology - PB - [julianagmartins@hotmail.com](mailto:julianagmartins@hotmail.com)  
 Eudanusia Guilherme de Figueiredo - Figueiredo, E. G. - Paraibano Center for Oncology - PB - [eudanusiagf@gmail.com](mailto:eudanusiagf@gmail.com)  
 Emilio Carlos de Arruda Lacerda - Lacerda, E. C. A. - Paraibano Center for Oncology - PB - [emiliolacerda@uol.com.br](mailto:emiliolacerda@uol.com.br)  
 Dayse Medeiros Bezerra - Bezerra, D. M. - Paraibano Center for Oncology - PB - [dayse.bezerra@cpoparaiba.com.br](mailto:dayse.bezerra@cpoparaiba.com.br)  
 Aine Bezerra Martins - Martins, A. B. - Paraibano Center for Oncology - PB - [alinebezmartins@gmail.com](mailto:alinebezmartins@gmail.com)  
 Rosemary Costa Nobrega - Nobrega R.C. - Paraibano Center for Oncology - PB - [rosecostanobrega@hotmail.com](mailto:rosecostanobrega@hotmail.com)

## INTRODUCTION

Alopecia is a stigmatizing adverse event of the patient in chemotherapy, affecting the quality of life, body self-image, sexuality and self-esteem. Its incidence is estimated at more than 60% in the use of alkylating and anti-microtubule agents, 60-100% with topoisomerase inhibitors and 10-50% with antimetabolites, reaching more than 90% of total alopecia with the use of anthracyclines. Cryotherapy is a technique that prevents alopecia through capillary cooling, generating rapid vasoconstriction, reduced local perfusion of chemotherapy and less contact of the medication with the scalp.<sup>1</sup>

## OBJECTIVE

To evaluate the outcomes of the use of capillary cryotherapy according to chemotherapy and its degree of alopecia.

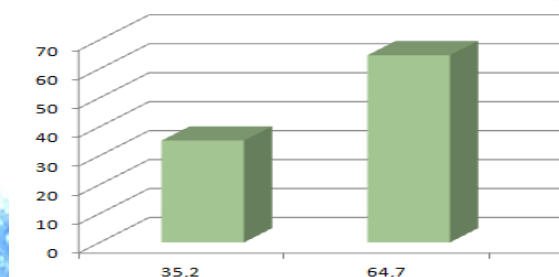
## METHOD

Observational analysis of retrospective and uni-institutional cohort of patients submitted to cryotherapy in a private oncology service in João Pessoa-PB, from January 2016 to June 2019. Data collection of electronic medical records was performed, following a created instrument for this purpose, using CTCAE 4.0 classification. Approved in CEP under the number 05617119000005183.

## RESULTS

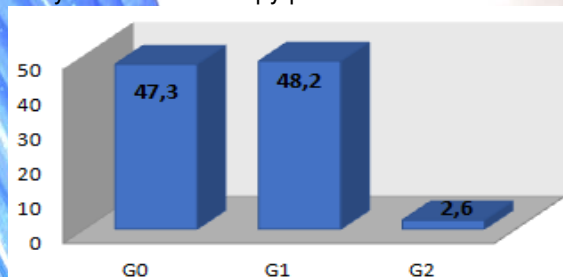
In a sample of 173 patients performing capillary cryotherapy, 170 were women and 3 men. The mean age of the patients was 54.5 years. Of the sample, 27.7% had arterial hypertension and 13.3% had diabetes mellitus; 57.8% of the women were post menopausal. It was verified that 76.3% of the cases were of breast cancer, with 35.2% (61) of the treatments based on anthracyclines, with prevention of grade 2 alopecia in 85.3%. Considering the non-anthracycline-based regimens, there was prevention of grade 2 alopecia in 97.4% of the cases. Of these, the mean and median time for onset of alopecia were 1 month. It was found that 12.1% of complaints related to cryotherapy were headache, 25% intolerance to cold and 12.1% dizziness. 56% of patients completed the treatment using capillary cryotherapy and 12.7% gave up cryotherapy for alopecia or cold intolerance.

**Figure 1:** Analysis of the percentage of anthracycline-based / no anthracycline-based treatments - 2016/2019



Source: CPO Cryotherapy Registration Protocol, 2019

**Figure 2:** Graduation of alopecia in patients undergoing anthracycline chemotherapy protocol



Source: CPO Cryotherapy Registration Protocol, 2019

**Figure 3:** Graduation of alopecia in patients who underwent chemotherapy protocol without anthracyclines.



Source: CPO Cryotherapy Registration Protocol, 2019

## CONCLUSION

The research promoted a greater statistical collection on the toxicity addressed, being able to subsidize health professionals about the gaps found in the practice with the prevention of alopecia. It was identified that capillary scalp cooling was effective and guaranteed capillary loss of less than 50% of the threads, with a higher incidence of prevention in protocols that do not involve anthracyclines. Scalp cooling may contribute to reducing stigma and fear of treatment-related toxicity.

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