Use of cream with 5% panthenol and Centella asiatica extract in patients undergoing breast radiotherapy: a randomized study in Uruguay.

Federico Lorenzo[1], Joaquin Ferrer[1,2], Sofia Guerreros[1], Emiliano Rivero[1], Leandro Ricagni[1], Alvaro Notejane[1], Mauro Giordano[1], Marcelo Torres[1], Madgalena Vola[1], Paula Fernandez[1], Santiago Roldan[1], Aldo Quarneti[2]
[1]Hospital de Clínicas Dr. Manuel Quintela, Universidad de la República, Uruguay [2]Oncosur - Cooperativa Medica de Florida.

San Antonio Breast Cancer Symposium
December 9-12, 2025

Abstract

Breast cancer is the most common malignancy in Uruguay, with approximately 75% of women treated for this disease receiving adjuvant radiotherapy. Radiation-induced skin toxicity (radiodermatitis) significantly impacts treatment tolerance, yet no robust evidence supports a single standard topical treatment to mitigate these adverse effects. This study aims to evaluate whether a topical cream containing 5% panthenol and Centella asiatica extract can effectively reduce radiodermatitis compared to standard care in breast cancer patients undergoing radiotherapy. Before starting the clinical trial our team has conducted an exhaustive literary review of the available evidence in the last 10 years. The results are included on the right (chart 1 and 2). We have concluded in the literary review that there are promising interventions to reduce the effect of ionizing radiations to the skin but there is not enough evidence to recommend consistently a particular treatment.

Methods and Materials

This prospective, randomized, open-label clinical trial will be conducted at Hospital de Clínicas Dr. Manuel Quintela in Uruguay. At least eighty patients with breast cancer requiring adjuvant radiotherapy using hypofractionated schemes will be randomized in a 1:1 ratio to receive either: daily water washing plus twice-daily application of a cream containing Centella asiatica extract and 5% panthenol (Group A), or daily water washing alone (Group B). Weekly clinical evaluations during treatment will be performed by radiation oncologists using the Common Terminology Criteria for Adverse Events (CTCAE) version 5.0. Consenting patients will also have photographic documentation evaluated by an independent, blinded dermatologist. The primary endpoint is radiodermatitis-free time measured in days. Secondary endpoints include the proportion of patients experiencing radiodermatitis of any grade and the proportion developing grade ≥2 radiodermatitis. Statistical analysis will use Kaplan-Meier survival curves with log-rank tests for univariate analysis and Cox regression for multivariate analysis, using SPSS version 29.0. Sample size was calculated to detect a 12-day difference in radiodermatitis onset with 80% power and significance level of 0.05.

Results

This study will determine whether a cream containing 5% panthenol and Centella asiatica extract can delay radiodermatitis onset and reduce its incidence during breast radiotherapy. The results will provide the needed evidence to standardize skin care protocols in radiotherapy, potentially improving treatment tolerance and quality of life for breast cancer patients undergoing radiotherapy. Final results are expected in late 2027.

Discussion

This study aims to provide robust evidence for the use of topical agents containing panthenol and Centella asiatica in preventing radiodermatitis in breast cancer patients. Results from this trial will contribute to developing evidence-based skin care guidelines for radiotherapy patients.

Study registration: Uruguayan Ministry of Public Health (Registration number: 9170979, registered April 21, 2025).

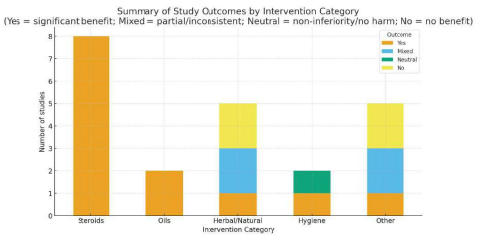


Chart 1. Result by intervention.

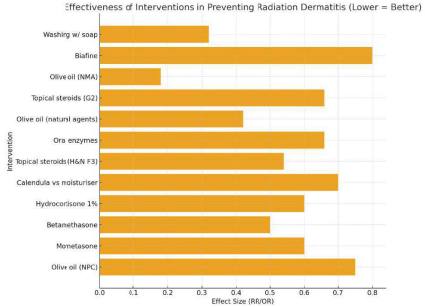


Chart 2. OR of reduction of RD by intervention.

Contact

Joaquin Ferrer
Hospital de Clínicas Dr. Manuel Quintela
Email: jferrercriado@gmail.com

Phone: +598 99 682 258

References

For a full list of the articles reviewed, please write to jferrercriado@gmail.com
For a copy of the protocol (in spanish) contact the author.

This presentation is the intellectual property of the author/presenter. Contact them at jferrercriado@gmail.com for permission to reprint and/or distribute.

© POSTER TEMPLATE BY GENIGRAPHICS® 1.800.790.4001 WWW.GENIGRAPHICS.COM