

# Minimize Acute Radiation Dermatitis - Consider Film Application to Achieve Positive Outcomes for Breast Cancer: A Case Series



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## Statement of the Clinical Problem/Challenge:

- In the United States, Canada, Europe and Australia, 50% of patients diagnosed with cancer will receive radiation therapy (RT) and 95% of them will experience some degree of skin reaction.
- Nearly all women who receive RT for breast cancer experience some degree of radiation dermatitis (RD).<sup>1</sup>

## Past Management

- In 2014 the use of a soft silicone film dressing during radiotherapy was explored and patients reported reduced symptoms from the skin with the film in place.<sup>2</sup>
- Severe RD is distressing, may have long term effects and might lead to treatment interruptions which may increase the risk of recurrence.
- More recent research (2020) at hospital in Canada, concluded that the soft silicone film completely prevented grade 3 RD and their rates of moist desquamation and grade 2 RD were lower with the film versus studies using aqueous cream.<sup>3</sup>

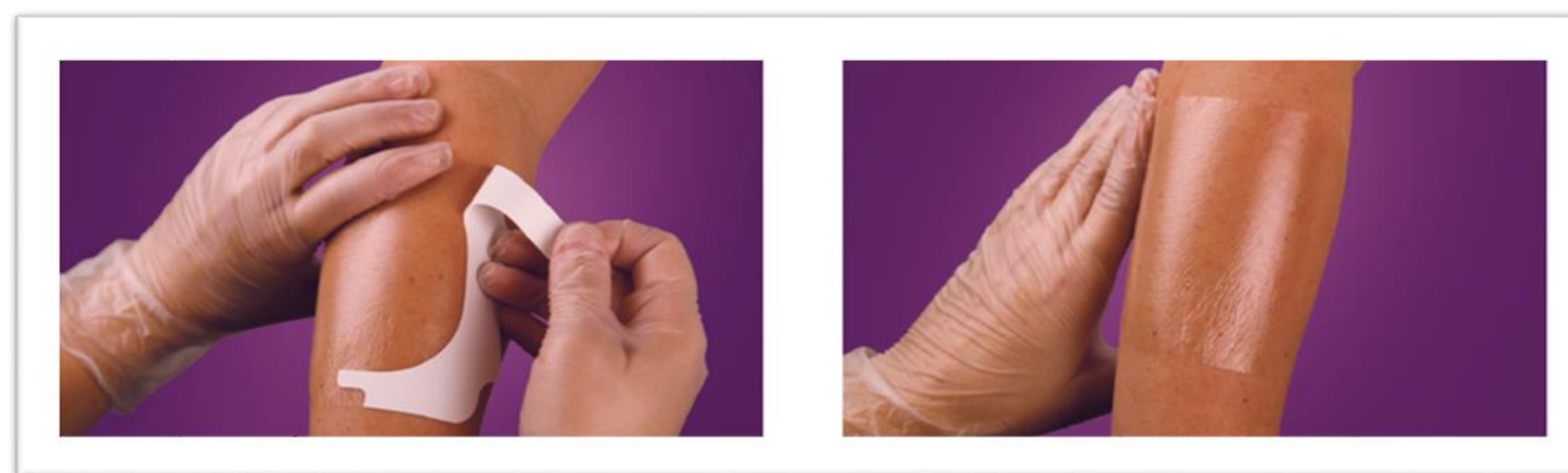
## Current Clinical Approach

- This case series, occurred in a trauma center located on the Westcoast of Canada. Within 24 hours of RT commencement, a soft silicone film dressing was applied to the breast area on 14 women ages 29-69. RT varied from 15-25 cycles, including one case of 5 and one of 10 treatments. Typically, the film was left in place up to two weeks following the treatment regimen.

## Data Collection

Pt ID	Age (years)	Radiation Treatment (number)	Skin Breakdown
1	44	20	nil
2	69	20	nil
3	60	25	nil
4	29	25	nil
5	54	20	nil
6	48	25	nil
7	55	25	nil
8	50	15	nil
9	57	16	nil
10*	36	25	Removed during workout
11	53	5	nil
12	46	10	nil
13*	47	15	Removed in 24hrs
14	34	25	nil

## Soft Silicone Film Dressing Appearance



## Case Study:

44-year-old female who previously had a left mastectomy, axillary dissection, right prophylactic immediate breast reconstruction with tissue expander. She is classified as T2N1 Invasive Ductal carcinoma. ER Positive, PR Negative, HER2 Positive. Radiation commenced in October for 15 treatments.



## Outcomes:

- The outcome for the women was positive, with 12 out of 14 women avoiding skin breakdown. One case was withdrawn 24 hours post application and the other case included repeated removal of soft silicone film during frequent exercise regimen.

## Conclusion:

- The benefits of utilizing a soft silicone film dressing, were its ability to stay on for weeks; while its transparency allowed skin reactions to be assessed without removing the film. The positive results from this small case series warrant further exploration into the utilization of a soft silicone film dressing to reduce the risk of RD for people receiving radiation treatment for breast cancer.

## References

1. Fernandex-Castro M. et al., Effectiveness of semi-permeable dressings to treat radiation-induced skin reactions. A systematic review. Eur J Cancer Care 2017;26:e12688 .
2. Herst PM, Bennett NC, Sutherland AE, Peszynski RI, Paterson DB, Jasperse ML. Prophylactic use of Mepitel Film prevent radiation-induced moist desquamation in an intra-patient randomised controlled clinical trial of 78 breast cancer patients. Radiother Oncol. 2014;110:137-143.
3. Yee C. et al. A Feasibility Study of Mepitel Film for the Prevention of Breast Radiation Dermatitis in a Canadian Center. Practical Radiation Oncology. 2021;11, e36-e45