**RAYGEL – AN ALTERNATIVE FOR SKIN CARE DURING EXTERNAL BEAM RADIATION**

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**Objective**

Skin reaction during radiation therapy for breast malignancy can result in significant discomfort and desquamation which may necessitate delays in therapy. RayGel (reduced glutathione and anthocyanins) a natural antioxidant with transdermal absorption was noted to dramatically decrease the observed skin reaction during radiotherapy (XRT) in a few patients treated in our department. This spurred us to undertake an objective evaluation of RayGel's effectiveness.

**Methods**

Patients undergoing whole breast external beam irradiation were randomized to receive either placebo or RayGel one to three hours before daily therapy over their 6 weeks course of treatment. Standard skin care of Vitamin E oil and Aloe Vera was used in both groups. Patients and investigators/staff were blinded. Skin reaction was documented by photographs and a severity scale.

**Results**

Thirty two (32) patients were enrolled. Thirty (30) were evaluable. Fifteen (15) received placebo, 15 RayGel. Scores were calculated by percent of breast skin involved and grade of reaction. The group receiving RayGel had a lower average score, 93.67 vs the placebo group 123.33. This translated to an average severity score in the RayGel group 24% less than that seen in the placebo group. Small group numbers for the pilot trial did not reach statistical significance ($p > .05$), but showed a strong trend in favor of RayGel.

**Conclusion**

RayGel can provide skin protection during XRT which supercedes that observed with standard skin care and placebo. This formula may reduce discomfort associated with breast irradiation.