



## 2021 Annual Spring Abstract Submission

### **Cryotherapy-Enhanced Chemowrap Treatment of Squamous Cell Carcinoma**

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An estimated 20% of cutaneous neoplasms are diagnosed as squamous cell carcinoma (SCC). A less invasive treatment modality is chemowraps, which consist of topical 5-fluorouracil (5-FU) 5% cream (e.g. Efudex) along with occlusive zinc oxide and a compressive bandage (e.g. Unna boot). Cryotherapy is sometimes utilized to obliterate malignant skin lesions and encourage healing. Here, we utilize the benefits of both cryotherapy and chemowraps to reduce the severity of widespread SCC lesions. A 67-year-old female with a history of SCC, surgically removed three years prior, presented with many SCCs on both lower extremities. Weekly treatment of cryotherapy with subsequent application of chemowraps, consisting of Efudex and an Unna boot, was initiated for eight consecutive weeks on the bilateral lower extremities. Notable improvement of the lesions on the lower extremities were seen bilaterally, with only some remaining ulceration. Biopsy results confirmed no remaining SCC lesions. To our knowledge, use of cryotherapy to enhance the efficacy of chemowraps has not yet been reported. These observations infer that cryotherapy may enhance the effectiveness of chemowrap treatment when used before each application. We hypothesize that cryotherapy induces edema and first strips the outer, hyperkeratotic layers of skin, both of which facilitate deeper penetration of the 5-FU cream in chemowraps. Chemowraps can also relieve the pain associated with cryotherapy. Therefore, dual cryotherapy and chemowrap treatment may be considered in order to maximize skin penetration, thus minimizing the extent of surgical intervention in patients with a significant number of SCC lesions.



A) Patient before cryotherapy and concurrent chemotherapeutic wrap treatment.



B) Patient status post eight weeks of weekly cryotherapy and chemowrap treatment.

## References

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