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Objectives:

To evaluate the efficacy of PHOTOFRIN-mediated photodynamic therapy (PDT) for treatment of diffuse "field cancerization" and Tis-T2N0M0 squamous cell carcinoma (SqCCa) of the oral cavity and oral pharynx in patients not amenable to or that failed conventional head and neck treatment.

Methods:

This is nonrandomized prospective study of twenty-eight patients with field cancerization and early stage Tis-T2N0M0 squamous cell carcinoma of the oral cavity / oropharynx treated with PHOTOFRIN-mediated PDT. Intravenous PHOTOFRIN (porfimer sodium)(dose 2.0 mg/kg) was administered outpatient, followed 48-60 hours later by intraoperative photoactivation at 630nm via fiberoptic microlens surface delivery (surgical light dose 50-100 J/cm²).

Results:

Twenty-one of twenty-seven patients (77%) have demonstrated complete remission (follow up one month to twelve years). There were five patients that had partial remission with recurrence observed at 3, 3, 8, 22 and 23 months subsequently retreated with conventional therapy. All locally disease free individuals were followed up between 1 to 144 months. Fourteen of the twenty-one patients in complete remission were disease free for a period greater than one year following photodynamic therapy.

Conclusions:

PHOTOFRIN -mediated photodynamic therapy can be used as a primary modality to treat Tis-T2N0 tumors of the oral cavity and oropharynx or for treatment for those that have failed prior surgery and/or radiation therapy. PDT allows for preservation of function and structure with absence of systemic toxicity and patients may have multiple drug administrations and laser light retreatments for local disease control.