**Photodynamic therapy for squamous cell carcinoma of the head and neck: a systematic review**

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Abstract: Squamous cell carcinoma of the head and neck (SCCHN) is a prevalent tumor worldwide. Approximately 30% of SCCHN are diagnosed at advanced stages of the disease and require radiotherapy associated or not with chemotherapy after surgical treatment. Despite the advances in treatment, the 5-year overall survival is still poor and new therapies are desirable to improve prognosis as well as the quality of life. The present study aimed to review the literature regarding the effectiveness of photodynamic therapy (PDT) in SCCHN. The articles were systematically reviewed according to PRISMA statement and the risk of bias was evaluated by JBI protocol. The literature search resulted in 34 included articles, a total of 1311 patients were treated with PDT, from which 983 patients were classified as early stage or T1 – T2, 328 patients were classified as advanced or T3 – T4 tumors. The photosensitizers reported were mTHPC, porfimer sodium, 5-ALA and Talaporfirin. The complete response to treatment ranged from of 67-100% in early or T1 and T2 tumors and 12.5-70% in advanced or T3 and T4 tumors. Reported side effects were minimal, with rare cases of vocal cord adhesion and carotid blow in extensive laryngeal tumors. The current literature presents several study design limitations and a high risk of bias, as no study involved the use of control group. PDT is a potential treatment tool for SCCHN, however it is necessary to develop further robust clinical studies with longer follow up periods to establish its efficacy in SCCHN.

Biography: Ana Melissa Ccopa Ibarra is a doctorate student at Nove de Julho University, São Paulo, Brazil, where she received her Bachelor Degree in Dentistry, Specialist degree in Temporomandibular Dysfunction and Orofacial Pain and Master Degree in Biopotonics Applied to Health Science. Her primary research interests are in the field of oral oncology, genetics, molecular biology and facial pain. She participates as voluntary at UNINOVE medical clinic to provide photobiomodulation treatment to patients with chronic orofacial. In addition, she also participates in the training of undergraduate students for laboratory research. In her free time, practices art animation.