



**Association of Human Papillomavirus in Oral Squamous Cell Carcinoma:
A Case-Control Study**

By

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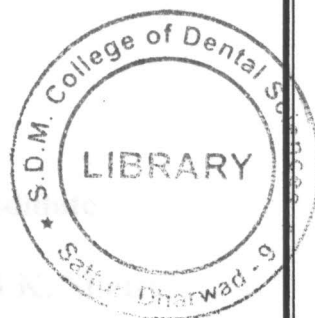
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ABSTRACT

Oncogenic Human papillomaviruses (HPVs) are important agents in the genesis of gynecological cancer, and have also been implied in the genesis of oral cancer. With the purpose of evaluating the relationship between HPV and oral squamous cell carcinoma (OSCC), a case-control study was performed to evaluate the presence of oncogenic subtypes of HPV (16 & 18) in patients with OSCC and healthy individuals and also to correlate the presence of oncogenic subtypes of HPV (16 & 18) in patients with OSCC with that of healthy control samples.

Twenty five patients who had the histological diagnosis of squamous cell carcinoma of the oral cavity were included in the study group. The control group was composed of twenty five normal subjects with no clinical evidence of oral cancer. Tissue specimens were obtained by incisional biopsies from the OSCC patients in the study group and from adjacent gingival tissue in patients undergoing 3rd molar extractions in the control group with prior consent. The biopsy specimen were preserved in Tris EDTA at 0 – 4° and evaluated for HPV using Polymerase chain reaction (PCR). Sixteen patients (64%) had a positive PCR for oncogenic papillomavirus (either subtypes 16/18) in the study group and only 7 specimen (36%) of the control group was positive for oncogenic papillomavirus (either subtypes 16/18).

Based on the statistical analysis of this study using Fisher's Exact Test, there was a statistically significant risk for OSCC to harbor oncogenic HPV (either subtypes 16/18) than the healthy control subjects.