

Queries

PubMed

((("cohort studies"[MeSH Terms:noexp] OR (cohort[Title/Abstract] AND study[Title/Abstract]) OR (cohort[Title/Abstract] AND studies[Title/Abstract])) OR ("case-control studies"[MeSH Terms] OR ("case-control"[All Fields] AND "studies"[All Fields]) OR "case-control studies"[All Fields] OR ("case"[All Fields] AND "control"[All Fields]) OR "case control"[All Fields])) OR ("cross-sectional studies"[MeSH Terms] OR ("cross-sectional"[All Fields] AND "studies"[All Fields]) OR "cross-sectional studies"[All Fields] OR ("cross"[All Fields] AND "sectional"[All Fields] AND "study"[All Fields]) OR "cross sectional study"[All Fields])) AND ("mouth neoplasms"[MeSH Terms] OR ("mouth"[All Fields] AND "neoplasms"[All Fields]) OR "mouth neoplasms"[All Fields] OR "oral cancer"[All Fields])

EMBASE

('mouth tumor'/exp OR 'mouth tumor' OR 'mouth cancer'/exp OR 'mouth cancer') AND ('cohort analysis' OR 'case control study' OR 'cross-sectional study')

Characteristics of Included studies

(Piemonte et al, 2018)

- Study design: prospective case-control
- Country: Argentina
- Time of recruitment: 2009-2013
- Setting: University Dental Clinic
- Number of participants: 153
OSCC group: 53; Control group: 100
- Inclusion criteria for OSCC group: squamous cell, in situ and verrucous carcinoma, confirmed histopathologically; for control group: subjects seeking dental treatment at the same institution during the same period

Risk of bias assessment:

The Joanna Briggs Institute Critical Appraisal Checklist for case-control studies includes 10 questions exploring different domains of the case-control study design, focusing on the group selection and matching, the methods of measurement of exposure, the assessment of the confounding factors, and the statistical analysis.

	Yes	No	Unclear	Not applicable
1. Were the groups comparable other than the presence of disease in cases or the absence of disease in controls?		X		
2. Were cases and controls matched appropriately?		X		
3. Were the same criteria used for identification of cases and controls?			X	
4. Was exposure measured in a standard, valid and reliable way?		X		

5. Was exposure measured in the same way for cases and controls?		X
6. Were confounding factors identified?	X	
7. Were strategies to deal with confounding factors stated?	X	
8. Were outcomes assessed in a standard, valid and reliable way for cases and controls?		X
9. Was the exposure period of interest long enough to be meaningful?		X
10. Was appropriate statistical analysis used?	X	

The number of both OSCC and control subjects exposed to CMI is not consistently reported in the tables of the paper. In table 3 exposed OSCC subject are 38 out of 53 and exposed controls are 36 out of 100, leading to an OR of 4.5 (95% CI 2.2-9.2). Conversely, in table 1 exposed OSCC subject are 31 and exposed controls are 37.

Overall assessment: **HIGH RISK**

Characteristics of Excluded studies

(Albuquerque et al, 2011)

This cross-sectional study lacked a control group recruiting healthy subjects.

(Balaram et al, 2002)

Absence of histological diagnosis; absence of a control group; no clinical data on OSCC available

(Bektas-Kayhan et al, 2014)

Absence of clinical information on topographical relationship between cancer and dental trauma

(Brouha et al, 2005)

Chronic mechanical irritation was not investigated, and the study lacked a control group

(Campbell et al, 1997)

The study group was composed only by patients affected by alveolar ridge carcinoma, whereas the control group was composed by subjects affected by other kinds of oral or head and neck cancers.

(Garrote et al, 2001)

No data about trauma, only duration of denture wearing

(Gellrich et al, 2003)

This study showed only a survey among oncological patients and clinicians

(Gillison, 2007)

This was a review paper

(Guha et al, 2007)

Absence of clinical data on mechanical irritation

(Guneri et al, 2005)

Data were collected by questionnaires and not assessed through a clinical examination.

(Jain et al, 2016)

Data were collected by questionnaires and not assessed through a clinical examination.

(Jham et al, 2008)

Retrospective descriptive study without control group

(Lazos et al, 2017)

Cross-sectional study with selected groups for comparison (chronic traumatic ulcer, benign irritative mechanical lesions)

(Marshall et al, 1992)

No data about trauma, only duration of denture wearing

(Manoharan et al, 2014)

Systematic review and meta-analysis

(Moergel et al, 2014)

Incidence of OSCC near to dental implants, off-topic. Absence of a control group

(Overholt et al, 1996)

Retrospective descriptive study, absence of control group

(Perry et al, 2015)

Retrospective descriptive study, absence of control group

(Piemonte et al, 2010)

Absence of patients with chronic traumatic ulcers from the control group

(Rosenquist et al, 2005)

Off-topic, absence of clinical data on chronic mechanical trauma

(Rotundo et al, 2013)

Absence of clinical data, administration of a questionnaire to recruited subjects

(Talamini et al, 2000)

No data about trauma, only duration of denture wearing

(Tezal et al, 2005)

Off-topic; survey on periodontal features related to oral cancer

(Vaccarezza et al, 2010)

Self-reporting, no clinical data

(Velly et al, 1998)

Case-control study based on interviews

(Winn et al, 1991)

Case-control study based on interviews

(Yan et al, 2017)

Absence of clinical data, interview

(Zheng et al, 1990)

Clinical data on OSCC and topographical relationship not available

(Zheng et al, 1992)

Clinical data on OSCC and topographical relationship not available

(Zuo et al, 2015)

This study focused on the loss of teeth, but not on chronic mechanical irritation; off-topic

Characteristics of Excluded studies (specifically reassessed because reported in previous reviews from the literature)

(Thumfart et al, 1978)

The study lacked a control group

(Gorsky and Silverman, 1984)

The study lacked a control group

(Young et al, 1986)

Control group consisted of patients affected by cancer of larynx

(Franco et al, 1989)

Absence of clinical data, administration of a questionnaire to recruited subjects

(Lockhart et al, 1998)

The control group consisted of patients affected by extra-oral malignancies

(Schildt et al, 1998)

Absence of clinical data, administration of a questionnaire to recruited subjects

(Fan et al, 2015)

The study lacked a control group

(Bernardes et al, 2019)

Histological study

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