Are salivary cytokines biomarkers in oncological and infectious diseases?
- A systematic review

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Background
- Human saliva is a complex fluid containing proteins (including cytokines), organic and inorganic substances - important for oral health
- Saliva can be used as diagnostic tool: - low-cost, non-invasive, easy collection

Aim
1. To review the potential use of salivary cytokines as diagnostic tool in oral and acute systemic diseases focusing on oncological and infectious conditions

Methods
Study type
- Systematic review according to PRISMA (Figure 1)
- Original papers published between January 1998 and December 2019

Results
- 1603 Publications were identified
- 34 Studies were included from 13 different countries
- 8 Studies only in children
- 24 Studies in adults only

Summary of analyzed cytokines in > 2 studies

Discussion
- IL-1β, IL-2, IL-6 and TNF-α are associated with severity of oral mucosal tissue damage → early therapeutic intervention before quality of life of pts is impaired
- IL-10 was associated with GvHD, IL-1β might predicted GvHD development
- IFN-γ concentrations correlate with HIV infection and oral complications
- IL-1α, IL-1β, IL-6, IL-8 and TNF-α levels were associated with oral dysplasia or cancer

Limitations
- Heterogeneity of studies (different collection methods, time of collection)
- Not considered in the analyzed studies the influence of:
  - age
  - smoking
  - dietary composition
  - hygiene standards

Conclusions
Saliva interesting biological fluid useful in children and in countries with limited resources for diagnosing and monitoring of oral and systemic diseases

There are no relationships to disclose