Defense mechanisms in the oral cavity

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The oral cavity is a unique anatomical structure which is continuously subject to challenge by the external environment and foreign material. It has been proved that more than 400 bacterial species reside in the oral cavity due to an elevated temperature, a high humidity and easy access of foodstuff.

The aim of this study was to represent the immune responses in oral cavity.

We conducted a literature review of MEDLINE® analyzing results of studies that examined defense mechanisms in the oral cavity in 1996-2018 (18 articles).

The modern concepts of tissue and cell defense mechanisms in oral mucosa include physical barriers (of epithelium and lamina propria), non-specific antimicrobial humoral factors, non-specific cellular defense mechanisms, specific immune defense mechanisms and saliva.

Interest in oral immunology has heightened in recent years with the recognition that there are clinical associations between periodontitis and systemic diseases other chronic inflammatory diseases of the ageing population (e.g. rheumatoid arthritis, diabetes and cardiovascular disease). Saliva is a rich and non-invasive source of disease biomarkers as well as DNA for studies.