

Salivary Diagnostics

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Saliva as a non-invasive specimen is easily collected during a dental visit. It contains oral epithelial cells, microflora and nasopharyngeal discharge as well as a wealth of molecular constituents. Over the past ten years, salivary diagnostics has generated significant interest and attention worldwide, as thousands of salivary proteins, RNA species and metabolites have been identified. Saliva omics studies the biological molecules present in saliva, which encompasses the salivary proteome, transcriptome, microRNA, metabolome, and microbiome. Investigation of nucleic acid methylation within saliva constituents is emerging. Due to its rich composition in omics constituents, saliva is considered to be a valuable source of biomarkers with translational and clinical values. A saliva ontology-based database generated from studies on oral and systemic diseases has been constructed to facilitate data accessibility, sharing and usage among researchers, educators and clinicians for further developing salivary diagnostics.

A number of salivary tests are currently available to screen for viral infections, e.g. detection of HIV antibody. For salivary tests to advance to clinical reality, clinical validation of salivary biomarkers for detection of oral and systemic diseases must occur. This will happen when changes in salivary biomarkers clearly reflect the development of oral and systemic diseases or disorders.

Statement

- Emerging evidence shows that saliva is a potentially useful biofluid to screen for and assess the risk and make diagnosis of oral and systemic diseases.
- Saliva-based biomarkers and diagnostic tests for oral and systemic diseases remain to be further developed.
- Oral healthcare professionals should be aware of the potential value and implications of salivary tests in clinical practice.
- FDI strongly encourages further basic, translational and clinical studies on salivary tests.
- FDI strongly encourages each FDI National Dental Association to clarify the role of the dentist within the healthcare team regarding salivary testing.

References

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