CURRENT CONCEPTS AND FUTURE OF SALIVARY MARKERS FOR DIAGNOSING ORAL SQUAMOUS CELL CARCINOMA (OSCC): A REVIEW AND META-ANALYSIS OF RELEVANT PUBLISHED STUDIES

Esam Ahmed Z Omar
Taibah University, Saudi Arabia

Background: Oral squamous cell carcinoma (OSCC) has a remarkably high incidence worldwide, and a fairly serious prognosis, encouraging further research into advanced technologies for non-invasive methods of making early diagnoses, ideally in primary care settings.

Objective: Our purpose was to examine the validity of using salivary markers changes in OSCC's patients by advanced nanotechnology and molecular diagnostics for diagnosing OSCC by identifying and evaluating relevant published reports.

Methods: MEDLINE, EMBASE, and CINAHL were searched to identify clinical trials and other information published between 1990 and 10 June 2014; the searches of MEDLINE and EMBASE were updated to November 2014. Studies of non-invasive methods of diagnosing OSCC (saliva-based diagnosis and others were included). Data were abstracted and evaluated in duplicate for possible relevance on two occasions at an interval of two months before being included or excluded. Studies met the inclusion criteria and have been assessed by modified version of the quality assessment of diagnostic accuracy studies instrument (QUADAS).

Findings: 163 studies of saliva based oral diagnosis met the inclusion criteria. Forty-two of these studies were assessed by the modified version of the QUADAS instrument. Saliva-based oral cancer diagnosis was found to be promising non-invasive methods for diagnosing OSCC.

Conclusions: It is clear that screening for and early detection of cancer and pre-cancerous lesions have the potential to reduce the morbidity and mortality of this disease. Advances in nanotechnology for saliva-based oral diagnosis are a promising pathway for the future development of more effective non-invasive methods for diagnosing OSCC that are easy to perform clinically in primary care settings.

Biography

Esam Ahmed Z Omar has graduated from University of London, Eastman Dental Institute, United Kingdom after a residency program at UCL Hospitals and Eastman Dental Institute, London, UK, with master's degree and Fellowship of Royal College of Surgeons in Ireland FFDRCSI in 2005. He is a fellow of International Association of Oral and Maxillofacial Surgery and Senior Fellow of Head and Neck Optical Diagnostic Society, London. UK.

esamomar@hotmail.com