

DIAGNOSTIC AIDS FOR THE DETECTION OF ORAL CANCER & PRECANCER

Professor Saman Warnakulasuriya, Head of Oral Medicine, King's College Dental Institute at Guy's, King's & St Thomas' Hospitals & Director, WHO Collaborating Centre for Oral Cancer and Precancer, Denmark Hill campus, London SE5 9RW, UK.
s.warne@kcl.ac.uk

Early detection and prompt treatment of oral cancer offer a best chance for cure. Oral potentially malignant disorders (OPMD) are morphologically altered tissues which have greater than normal risk of transforming into a malignancy. Some may even contain microscopic foci of cancer at the time of diagnosis. Today a variety of OPMDs are evaluated and managed in primary care, despite the controversies on the terminology used and uncertainty of available techniques for their detection. Several white and red oral lesions have been recognized by the World Health Organisation as OPMDs, guidelines for their diagnosis and approaches to reporting of oral dysplasia have been revised at a recent workshop (Warnakulasuriya et al, 2007, 2008).

The level of risk of OPMDs cannot be easily quantified but because of the potentially fatal consequences that some may carry, it is extremely important for clinicians to remain knowledgeable and updated on the diagnostic and prognostic features. The difficulties faced in risk assessment require development of additional methods to diagnose and prognosticate OPMDs.

A variety of new and emerging diagnostic aids and adjunctive techniques are currently proposed or are available to potentially assist in the screening of healthy asymptomatic patients for the detection of otherwise occult oral cancerous lesions or potentially malignant disorders. Some tests have been proposed to assess the risk of potentially malignant disorders i.e. their potential to become cancer. These include, toluidine blue staining, autofluorescence, chemiluminescence, brush biopsy, salivary diagnostics and ploidy analysis.

Unfortunately, no technique or technology to date has provided definitive evidence to suggest that it improves the sensitivity or specificity of oral cancer screening beyond clinical oral examination (Lingen et al., 2008). Further detailed investigations to estimate the sensitivity, specificity, positive and negative predictive values for each of these adjunctive tests against standard pathology reporting (cancer or dysplasia) will allow us to judge the accuracy of these chair side or laboratory tests in detecting cancer or oral pre-malignant lesions.

- 1) Warnakulasuriya S, Johnson NW, Van der Waal I. Nomenclature and classification of potentially malignant disorders of the oral mucosa. *J Oral Pathol Med* 2007; 36: 575-80.
- 2) Warnakulasuriya S, J. Reibel, J. Bouquot, E. Dabelsteen. Oral epithelial dysplasia classification systems: predictive value, utility, weakness and scope of improvement. *J Oral Pathol Med* 2008; 37: 127-133.
- 3) Lingen MW, Kalmar JR, Karrison T, Speight P. Critical evaluation of diagnostic aids for the detection of oral cancer. *Oral Oncol* 2008; 44:10-22.