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## Light based diagnostic aids for early detection of oral cancer

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**L**ight based Diagnostic Aids for Early Detection of Oral cancer: Early detection of oral cancer is one of the most efficient ways to reduce the high mortality from this disease. Early detection can minimize the morbidity of the disease and its treatment, which is associated with a severe loss of function, disfigurement, depression and poor quality of life. A number of light-based oral cancer screening aids have been developed and aimed at assisting in the identification of precancerous and cancerous lesions at their earliest stage. These aids are used as adjuncts to the conventional oral cavity examination to help visualize lesions. Light based diagnostic systems are based on properties like autofluorescence, chemiluminescence, tissue fluorescence spectroscopy, optical coherence and narrow band imaging. These diagnostic aids work on the assumption that abnormal metabolic or structural changes have different absorbance and reflectance properties. Chemiluminescence is the emission of light from a chemical reaction. In tissue autofluorescence, the changes in the structure and metabolism of the epithelium and sub-epithelial stroma alter their interaction with intense blue light. Advantages of these light based aids are non invasiveness and ease of use in clinical setting with their portable devices. Main disadvantage is its low specificity when compared with tissue biopsy which is the gold standard in screening of oral cancer.

### Biography

Dr. Mahima VG has completed her BDS & MDS from Bapuji Dental college, Davangere, Karnataka and currently working as Professor in the Department of Oral medicine & Radiology, JSS Dental College & Hospital, Mysore, a premier institution in the field. She has published more than 100 papers in various reputed national and international journals and has a vast teaching experience of 18 years in the profession.

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