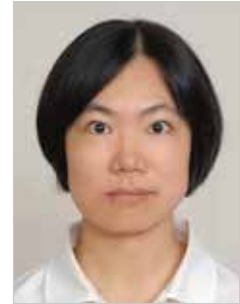


Application of Optical Coherence Tomography in the Diagnostic Dentistry: Experiences from A Medical Center

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Optical coherence tomography (OCT) is a rapidly developing in vivo microscopy technique that has the advantages of being non-invasive, fast, and non-radiative. This technology has the potential to observe oral tissues and diagnose diseases, including dental caries, periodontal disease, and oral mucosal disease. In recent years, the Department of Dentistry at Yang-Ming University and the Department of Stomatology at Taipei Veterans General Hospital have collaborated to explore the application of a locally developed OCT system in dental diagnosis. This system has been shown

to be useful for detecting dental caries and subgingival plaque, as well as for observing the differences in optical coherence tomography scan images of the labial mucosa of patients with different degrees of inflammation in their minor salivary glands or those with and without dry mouth. The possibility of using this system as a screening tool for dry mouth will also be discussed in this talk. We will share our experience using OCT and discuss the advantages, limitations, and potential developments of this system in the diagnosis of oral diseases.