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A Preliminary study on Oral Leukoplakia: Candida Associated Leukoplakia and risk factors

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Objectives: The study aimed to investigate the Candida Associated Leukoplakia (CAL), and associated risk factors among the individuals with Oral Leukoplakia (OL) attending the Oral and Maxillofacial (OMF) clinic at Colombo South Teaching Hospital

Methods: A total of 33 individuals with OL were included. Data was collected using a pretested interviewer administered questionnaire. A specimen was taken by a medical officer using a sterile swab adhering to standard precautions. An oral swab was collected from the lesion for direct microscopy and culture. Control swab was collected from an unaffected area. Total colony count of yeast, species identification and antifungal susceptibility tests were carried out at the Department of Microbiology at University of Sri Jayewardenepura

Results: The OL was predominantly seen in patients over 50 years (27/33) and male to female ratio was 27:6. Majority of patients had non-homogenous leukoplakia (20/33) followed by homogenous leukoplakia (13/33). The percentage of CAL among OL patients were 58%(19/33). *Candida albicans* 16/19(84%) was the predominant species identified in CAL. Of the patients with OL 33%(11/33) had oral cancer. Among the oral cancer patients CAL was observed in 7/11. Relative risk (RR) of CAL was high for both betel-quid chewing and oral cancer (RR= 1.43).

Conclusions: *Candida albicans* was the main pathogen associated with CAL in this group of patients. Relative risk (RR) of CAL was high for both betel-quid chewing and oral cancer (RR= 1.43).