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FACTORS ASSOCIATED WITH DENTURE INDUCED STOMATITIS: A COMPARATIVE STUDY

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Denture induced stomatitis (DIS) is a medical problem in adult denture wearers which is commonly associated with *Candida*. Oral *Candida* may be associated with hand carriage and candidal infections in other parts of the body. Therefore, this study aimed to assess the factors associated with DIS and the oral and hand carriage of *Candida* among the patients with and without DIS attending the Dental Hospital (Teaching), Peradeniya.

Sixty two complete or partial denture wearers with DIS were included in the test group and 30 comparable patients without DIS were included in the control group. Socio-demographic data, medical and dental history and denture and oral hygiene habits were assessed using a pretested interviewer administered questionnaire. Clinical examinations were performed to assess DIS. Oral and hand *Candida* was quantified in terms of colony forming units after fingertips and oral rinse culture on Sabourad's dextrose agar (SDA). Identification of *Candida* was based on colony characteristics and Gram's stain.

In the test group, 45 (72.6%) and 17 (27.4%) patients had upper complete and partial dentures respectively. In the control group, 14 (46.7%) and 16 (53.3%) patients were complete and partial denture wearers respectively. Among the DIS patients, 34 (54.8%) were also wearing lower dentures, but DIS was not related to any of the lower dentures. Use of dentures during sleep showed a significant relationship to the presence of DIS (Chi-square= 11.6, $P<0.001$). Newton type II DIS was the most frequently observed clinical pattern (in 69.4% patients) and proportions of patients with type I and type III DIS were equal. The odds (Odds Ratios) of carrying *Candida* in the hand by oral candidal carriers was 7.2 (95% CI 0.7, 66.6) for the test group and 8.6 (95% CI 8.7, 84.8) for the control group.

In conclusion, use of dentures during sleep is a factor that predisposes patients for the occurrence of DIS. Oral *Candida* in denture wearers may lead to candidal hand carriage. An extended study with a larger control group is suggested for more concrete findings.

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