

Prevalence of Candida Species Isolated from the Oral Cavities of Healthy Sri Lankan Child Cohort

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Oral candidiasis is a common oral fungal infection due to *Candida* species. The oral *Candida* carriage of healthy children varies from 23 - 71%. Children belonging to the age group of 6 - 12 years sometimes experience malocclusion indicating orthodontic therapy. Orthodontic therapy promotes oral dysbiosis which can lead to candidiasis. Understanding the prevalence of *Candida* in children of above age category is crucial for improving their oral hygiene to prevent Candidiasis due to orthodontics. This study aims to investigate the prevalence of oral *Candida* in a healthy cohort Sri Lankan child from the Dental Teaching Hospital, Peradeniya. Oral rinse samples were collected from 60 healthy children aged 6- 12 years who visited the Hospital, seeking orthodontic treatment and had not undergone any previous orthodontic therapy. They also had not taken a course of antibiotics or antifungal agents for 3 months prior to sample collection. Concentrated oral rinse samples were obtained from the subjects and cultured on Sabouraud Dextrose Agar (SDA) and the Colony Forming Units (CFU) counts were calculated. The prevalence of *Candida* species was identified using culture characteristics on SDA, CHROMagar and gram staining. Prevalence of *Candida* in the study sample was 50% (30/60). The majority of the isolates were *Candida albicans* (86.67%), followed by *Candida tropicalis* (5%) and *Candida krusei* (3.33%). The mean oral carriage of *Candida* was 205.3 CFU/ml. The oral *Candida* carriage healthy Sri Lankan cohort of children was 50% and the leading *Candida* species was *Candida albicans*. Therefore, it is important to improve their oral hygiene and their awareness of oral health prior to Orthodontic therapy.

Keywords: *Candida*, Orthodontic Treatment, Oral *Candida* Carriage.