

with toothpaste. The samples were sent for SEM images after the brushing.

Results: Images of the SEM micrographs were interpreted descriptively. The brushed samples demonstrated series of 2-dimensional grooves in a long axis of the specimen with the most prominent effect was noted on sample brushed with toothbrush and toothpaste and the least grooves on sample brushed using Miswak.

Conclusion: After three years of mechanical brushing, Miswak presented with the least 2-dimensional abrasive effect on PMMA denture base material compared to the other cleaning methods.

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OSNC8: The 2-Dimensional Effects of *Salvadora Persica* (Miswak) Mechanical Brushing on Denture Base Material

Wan Nor Syariza Wan Ali, Muhammad Saufi Sapon,
Nabihah Rosdi

Universiti Sains Islam Malaysia (USIM), Kuala Lumpur, Malaysia

Introduction: *Salvadora Persica* (Miswak) was proven to have multiple benefits to oral tissues. The antimicrobial effects of miswak towards intraoral microbes can reduce the prevalence of denture induced stomatitis when used by denture wearers. Dentures need to be cleaned to maintain its aesthetics and prevent candida growth. However, inappropriate selection of denture cleaning aids might compromise the properties of the poly methyl methacrylate (PMMA) denture base material and its longevity. Therefore, the aim of this study is to assess the 2-dimensional mechanical brushing effect of miswak, toothbrush and toothbrush with toothpaste on PMMA denture base material.

Methods: Nine PMMA samples sized 2x2x0.5cm were prepared by using the standard denture base preparation protocols. All samples were sent for scanning electron microscopy (SEM) as baseline record. Toothbrushing simulator was used to simulate mechanical brushing of the PMMA samples and they were brushed for 17,800 and 53,400 strokes to simulate one and three years of mechanical brushing using miswak, soft toothbrush and soft toothbrush