

Antifungal effect of henna against *Candida albicans* adhered to acrylic resin as a possible method for prevention of denture stomatitis

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Denture stomatitis is a very common disease affecting the oral mucosa of denture wearers.

The aim of this study was to measure the antifungal effect of henna against *Candida albicans* adhered to acrylic resin as a possible method for prevention of denture stomatitis. One-hundred-eighty acrylic plates were prepared of heat-cured acrylic denture resin. The specimens were divided into six groups of 30 samples each. The first group was only polymer and monomer following the conventional manufacturer instruction for processing complete dentures. The other five groups were processed by adding different concentration of Yamani henna powder (Harazi) to the polymer in a concentration of henna: polymer 1%, 2.5%, 5%, 7.5% and 10%, respectively. Samples were incubated in artificial saliva rich with *Candida albicans* at 37 °C, and the effect of henna on *Candida albicans* was evaluated in two different methods: semi-quantitative slide count and a culture-based quantitative assay (quantitative). Variation in the number of live *Candida* was observed with the increase in the concentration of Yamani henna powder. It was observed that the variation in live *Candida*, between control group and group B (concentration of Yamani henna powder was 1%), was statistically significant with a p-value of 0.0001. Similarly, variations in live *Candida* were significant, when the concentration of powder was 7.5% or 10% in contrast with control group and p-values were 0.0001 and 0.001 respectively. Adding henna to acrylic resin denture could be effective in controlling

Candida albicans proliferation on the denture surface; however, its effects on the physical properties of acrylic resin denture need further studies.

Biography:

Amal Nawasrah a Jordanian lady living now in Saudi Arabia, working as prosthodontist in the University of Dammam as a lecturer since 2010. She is really very interested in teaching and in conducting research and eager to continue in this field. On more note, she got a patent in incorporation of henna powder to PMMA during processing, as antifungal agent to prevent denture stomatitis. The patent was accepted from United States Patent and Trademark Office, with the confirmation number 7326. And now she is starting studying the mechanical and physical properties