

Toothpaste Novelty and Reality

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ABSTRACT:

The evolution of microbes, including the development of resistant strains and adaptation, depend on diverse members of the microbial population that can thrive in new condition. Therefore, microbes present remarkable abilities to evolve faster than their hosts do. Oral isolates of different patients aged 3 years to 60 years were obtained, purified, and tested against four different commercial medicinal plants extracts for antimicrobial activity. A total of 10 different commercial toothpastes (different brands and prices) were collected, and the combined action of the medicinal plants and toothpaste was studied. We found a higher bacterial population in the age group of 3–40 years than the group of 40–60 years, with approximately 44% and 32%, respectively. The combined action of ethanol medicinal plant extracts (alone) against oral isolates showed a synergistic effect, with 32.20%, for combination A (Ci/Ca). By contrast, the combined action of medicinal plants with 10 different toothpastes improved the antimicrobial sensitivity by 60% for combinations A. In addition, the effectiveness of toothpaste is not related to the price.

KEY-WORDS: Microbial evolution, Oral isolates, Medicinal plants, Toothpaste, Antimicrobial activity.