Prevention and treatment of oral candidiasis: Challenges and solutions

Oral candidiasis (thrush) is among the most common opportunistic fungal infection in humans. It is caused by the imbalance of microorganisms in the oral cavity allowing various Candida species to grow out of control causing infection with development of white lesions and potentially spreading to other parts of the body, including the esophagus, lungs, liver, and skin. When allowed to progress, invasive candidemia can be life-threatening. While Candida albicans has been widely studied, oral candidiasis often involves several species of Candida resident in the oral ecology, each with its own characteristics and susceptibility to treatments. Prevalent recommended therapies currently include nystatin, azole antifungal agents and amphotericin B preparations. Treatments aimed at controlling or reducing may be ineffective in treating other Candida species and therefore of limited value in halting the progression of oral candidiasis. Candida species are found in the oral cavity as normal commensal microorganisms and may overgrow when the host response is weakened, such as in immunocompromised individuals. Immunocompromised conditions include HIV/AIDS, nutritional deficiencies, and metabolic disorders such as diabetes, malignancies, xerostomia, medication side effects, aging, pregnancy, Sjogrens syndrome, dentures, and smokers. This paper and presentation examine the research literature on the prevention and treatment of candidiasis, focusing on the efficacy of available clinical and home oral care treatments, and the susceptibility of the various oral Candida species to these treatments.

Biography

James L Ratcliff is Chairman and CEO of Rowpar Pharmaceuticals, Scottsdale, AZ, makers of the ClōSYS and Dentists’ Choice brands of oral care products. Prior to assuming his current role, he was Professor and Senior Scientist at the Center for Higher Education at the Pennsylvania State University (1990-2000), Professor of higher education at the Iowa State University (1979-1989), President of Performance Associates Consultants (1976 to present), Associate Professor, Florida Atlantic University (1977-1978) and Assistant Professor, Washington State University (1975-77). He is author of over two dozen books and over hundred articles and has consulted with universities, research centers and higher education agencies on six continents. He is co-inventor with Elena Young of a patent application entitled, “Method for prevention and treatment of oral fungal infections”.

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