Parappa Sajjan

Mallareddy Institute of Dental Sciences, India

Salibact (Chlorhexidine di-undecylenate): A new variant of chlorhexidine can it be an ideal agent to prevent plaque related oral diseases?

Research in the field of preventive dentistry heavily focuses on effective plaque control. Plaque control using mechanical methods like brushing and flossing is the most common, reliable and effective method. However, persons with poor manual dexterity or some high risk populations requires adjunctive support through chemical agents. To be considered as an ideal antiplaque agent, the material should possess efficacy against oral microorganisms, should not cause any toxicity or allergy, should be compatible with other ingredients, should have long shelf life and should not develop any resistant microorganisms. Several antimicrobial agents have been tested for effective plaque control. Each material has shown varying efficacy with some limitations. Still there is a search for single comprehensive agent to control plaque related oral diseases like dental caries, gingivitis and periodontitis. Despite the limitations, some of the agents have shown promising results. Chlorhexidine mouth wash is a novel material showing very good anti plaque properties, restricted for short term use because of staining as a side effect on long term use. Breakthrough research in the field is to use with the material which reduces discoloration. A new material chlorhexidine with anti-discoloration system has shown promising results.

Chlorhexidine varnish is the other material which has shown substantial results in the control of S. mutans and caries. Triclosan is widely and successfully used in the form dentifrice. There are quite a number of health impacts of triclosan brought to light by the scientific and environmental community across the globe. It is known to cause skin irritation, hormone disruption, it interferes with the muscle function, it is resistant to certain bacteria, it has a detrimental effect on the central nervous system, it is also known to alter the thyroid hormone metabolism and it may also cause tumor development. Because of all these concerns there is need for suitable alternative. A good amount of research substantiated the efficacy of chlorhexidine in the dentifrice, but staining is the most common side effect, hence not been recommended.

Salicylates and Chemicals Pvt. Ltd has come up with novel patented antimicrobial which brings together the antibacterial properties of and the antifungal properties of undecylenic acid into one agent. Chlorhexidine di-undecylenate (trade name: Salibact) has shown promising results in various personal care products. The toxicity and oral compatibility has been well studied. The material has also been tested in the form of dentifrices and tested against triclosan. The results are encouraging, the material has shown equal efficacy chlorhexidine without staining as a side effect. The material has further scope in different oral formulations such as mouth wash, gel, varnish and tablet which are expected to maximize the benefits and minimize the side effect.

Biography

Parappa Sajjan is Professor and Head, Dept of Public Health Dentistry at Mallareddy Institute of Dental Sciences, Hyderabad, India. He is a passionate researcher and active Public Health Dentist. He has conducted numerous dental outreach programs for geriatric population, school children, socially and economically deprived population. His extensive work in dental research is aimed to comprehensively understand the properties of chlorhexidine. He has published research work on chlorhexidine as an antimicrobial agent in dentistry which gives insight into multiple uses of chlorhexidine in different formulations in array of oral disorders. His work on chlorhexidine varnish and S.mutans adds to the scientific body of knowledge in comprehensive management of caries. Currently based on preliminary studies, his work on the product salibact (a variant of chlorhexidine) is anticipated to be a breakthrough material for control of different oral diseases.

drsajjan12@gmail.com