First vaccine for treating gum disease

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HONGKONG/LEIPZIG, Germany: Scientists at the University of Melbourne, Australia, have announced that they have partnered with CSL Limited and Sanofi Pasteur, the country’s largest biopharmaceutical companies, to further develop and commercialise a vaccine for the treatment of gum disease. The programme, which has been ten years in development, involves bacterial peptides and proteins that trigger the immune response to periodontal inflammation. The vaccine is currently being tested in mouse models and is expected to progress to clinical trials soon, the researchers said.

The new vaccine approach is targeting the “ring leader” of a group of pathogenic bacteria called P. gingivalis that cause periodontitis. According to a US-based consortium for P. gingivalis research, elevated levels of the organism were found in the majority of periodontal lesions, as well as in low levels in healthy sites. In addition, the organism also produces a number of enzymes that have been shown to interact with and degrade host proteins.

Although the bacterium can be eliminated through periodontal therapy, it is often found in recurrent infections.

“Periodontitis is a serious disease and dentists face a major challenge in treating it, because most people will not know they have the disease until it’s too late and the infection has progressed to advanced stages,” says Prof. Eric Reynolds, CEO of the Cooperative Research Centre for Oral Health Science and the Head of the University of Melbourne’s Dental School. “This new approach will provide dentists and patients with a specific treatment.”

Traditional periodontal therapy involves manual scaling and cleaning, and even surgery with instruments or dental lasers in an effort to contain the bacterial infection. Reynolds said their new line of vaccine products will possibly prevent the progression of the disease, rather than managing its symptoms and damaging consequences.

Sanofi Pasteur has an option to an exclusive worldwide licence to commercialise the intellectual property associated with these products.

A new vaccine could help to replace traditional periodontal treatment methods. (DTI/Photo Dmitry Naumov)

Aussi dentists oppose dental scheme reform

Dental Association is pushing for a targeted scheme modelled on the Commonwealth Dental Program dumped by the Howard government in 1996. The scheme would entitle patients to receive cover either free through public dental services or one of a series of private plans.

Instead, the Australian Dental Association (ADA) is pushing for a targeted scheme modelled on the Commonwealth Dental Program dumped by the Howard government in 1996. It is supposed to be funded through a new tax on sugar, sugary sweets and soft drinks, ADA officials said.

India to extend BDS courses

The Dental Council of India has announced to introduce a five-year Bachelor of Dental Surgery course as well as Post Graduate diploma courses. The extended offering is supposed to help internationalise dental education in India and solve the faculty problems in dental colleges.