Simple exercise found to improve oral function in the elderly

By DTI

SEOUl, SOUTH Korea: Older adults frequently experience decreased salivation and aerostomia, which may lead to oral soft-tissue disease, dental caries, periodontal disease and oral candidiasis. Although masticatory and swallowing functions are closely linked to overall health, nutritional status and quality of life, chemical agents used to treat dry mouth may cause side effects and often require a prescription. In a new study, researchers have improved oral function in the elderly by performing a simple oral stretching and exercise technique.

According to the researchers, conventional oral exercises performed in previous studies were impractical for continuous use in the elderly owing to the extended duration needed for positive treatment outcomes. The present study used a simple oral exercise (SOE), which included lip stretching, tongue stretching, cheek stretching, masticatory muscle exercise and swallowing movements to reduce performance time and to determine the short-term effects of the SOE.

In the course of the study, 84 participants aged 65 years and older performed the SOE twice a day for one week after receiving instructions from a trained dental hygienist. The researchers evaluated the participants’ masticatory performance by using the mixing ability index (MAI). Additionally, they assessed the unstimulated saliva and the moisture levels of the tongue and buccal mucosa and performed the repetitive saliva swallowing test. On the basis of each of these four measurements, participants were dichotomised into two groups with good and poor oral health conditions.

The data showed that the mean MAI increased by 6 per cent immediately after the intervention and by 16 per cent in the poor-chewing group. Similarly, the amount of unstimulated saliva increased by 0.1 ml/min immediately after the SOE and by 29 per cent in the poor salivation group. The degree of tongue moisture increased by 3 per cent and was maintained, according to the researchers. In the poor-swallowing group, 25 per cent and 40 per cent of the participants were upgraded to the good-swallowing group immediately after the intervention, as well as after one week of intervention, respectively. Finally, the participants experienced less discomfort as their oral function improved.

The study, titled “Improvements in oral functions of elderly after simple oral exercise”, was published online on 16 May 2019 in Clinical Interventions in Aging.

Food additive used in toothpaste and chewing gum may have negative impact on health

By DTI

SYDNEY, Australia: Nanoparticles of the common food additive titanium dioxide (E171), which is found in more than 900 food products, including chewing gum, as well as in some medicines and toothpastes, may have a negative impact on human health, according to a recent study. The results of the study have prompted experts to call for better regulations and more discussion around the topic of food additives.

Conducted by researchers from the University of Sydney, the study showed that E171 has an impact on gut microbiota and impairs some of its functions. This could cause inflammatory bowel diseases or colorectal cancer. Co-lead author Dr Wojciech Chrzanowski, an associate professor at the University of Sydney Nano Institute, said: “There is increasing evidence that continuous exposure to nanoparticles has an impact on gut microbiota composition, and since gut microbiota is a gatekeeper of our health, any changes to its function have an influence over overall health.”

In 2017, French environmental association Agir pour l’Environnement studied the composition of 408 toothpastes and found 171 in 271 dental pastes, 25 bio-toothpastes and 29 toothpastes for children. Now after ANSES, the French agency for food, environmental and occupational health and safety, released an analysis of 25 new studies on E171’s toxicity, concluding there was a lack of scientific data on its harmfulness but recommending the use of known alternatives, the French government plans to ban the use of the additive altogether from 2020.

According to the authors of the Australian study, increasing rates of dementia, autoimmune diseases, cancer metastasis, eczema, asthma and autism are among a growing list of diseases that have been linked to chronic exposure to E171 nanoparticles. Speaking about the results and what it means for the Australian government, the researchers said that E171 consumption should be better regulated by food authorities.

The study, titled “Impact of the food additive titanium dioxide (E171) on gut microbiota-host interaction”, was published on 14 May 2019 in Frontiers in Nutrition.