Atopic dermatitis linked to higher caries risk

New findings from a Singaporean study suggest that infants with atopic dermatitis might be at a higher risk of developing caries as toddlers.

By DTI

SINGAPORE: New research from the National University of Singapore (NUS) and the Singapore Institute for Clinical Sciences of the Agency for Science, Technology and Research has suggested a link between two common childhood diseases: atopic dermatitis and dental caries. In the study, infants who had symptoms of the skin condition and were sensitive to common allergens were three times more likely to develop tooth decay at 2 and 3 years of age compared with infants without the skin inflammation.

Atopic dermatitis, also known as atopic eczema, is a chronic, relapsing form of inflammatory skin disease that is characterised by symptoms such as itchy, red, swollen or cracked skin and a rash. Over the last year, the condition has been on the rise and affects approximately 15–30 per cent of children in developed countries today. As for dental caries, a 2009 NUS Faculty of Dentistry study found that four in ten preschool children in Singapore suffered from some form.

In the current study, which was part of the Growing Up in Singapore Towards Healthy Outcomes programme, the researchers interviewed about 500 parents during their child’s first year, at three, six and 12 months, respectively, to identify infants with eczema. Those children whose mothers reported them as having the skin condition were given skin prick testing to assess their sensitivity to common allergens.

The results showed that infants who had eczema and were sensitive to common allergens were three to four times more likely to experience tooth decay when they were two and three years of age, respectively, compared with infants without the dermatitis.

“Our latest findings will give parents and caregivers of babies with eczema early warning of increased risk of developing tooth decay in toddlers,” NUS researcher Dr Stephen Hsu told the Straits Times. “Regular dental check-ups can then be conducted to help minimise the incidence of tooth decay in these children.”

According to the research team, it is the first time a link between both conditions has been discovered. A possible mechanism behind the connection could be structural defects that occur during tissue development in the uterus. However, in order to confirm the underlying biological mechanism of the relationship, the researchers are now conducting further genetic analyses.

The study, titled “Atopic dermatitis and early childhood caries: Results of the GUSTO study”, was published on 21 January in the Journal of Allergy and Clinical Immunology.

Dental health of Australian children still a concern

By DTI

ADELAIDE, Australia: The University of Adelaide Press has made the findings of the 2012–14 National Child Oral Health Study (NCOHS) available for free download, with a paperback edition set to be released in March. The NCOHS sampled 24,664 children aged between 3 and 14 years across 841 schools and collected data regarding their dental health behaviours, access to dental care services, overall oral health status and other associated factors.

The collaborative work has been collected in a report under the title Oral Health of Australian Children: The National Child Oral Health Study 2012–14 and aims to provide an accurate and concise examination to practise in Hong.

Over 40 per cent of children aged between 3 and 10 years had experienced cavities in their primary teeth, and the overall rate of serious lesions was consistently higher among children from lower education and income households. Additionally, children living in Queensland and the Northern Territory—two jurisdictions with more remote communities and lower levels of water fluoridation than the national average—were more likely to have dental caries and at a greater level of severity. The report ultimately offers a data set that can be used for further analysis of methods for improving children’s health, according to the editors.

With measures such as this, Singapore might well be on its way to improving the situation. In Hong Kong, by contrast, a planned reform of the Medical Council of Hong Kong, a regulatory and statutory body that grants licences to foreign doctors, has already faced substantial opposition. Medical professionals and patients alike have raised concerns that relaxed licensing requirements for mainland and foreign doctors, aimed at making it easier for foreign doctors to practise in the city, could compromise standards. In a recent survey, 71 per cent of 1,009 general public respondents opposed the idea of exempting overseas doctors from local examination to practise in Hong Kong.

As for practitioners and Election Committee respondents, 83 and 85 per cent respectively opposed the plan.

This is despite the fact that Hong Kong’s public hospitals have been documenting chronic shortages in the medical workforce for years. In 2016, the city’s public clinics were understaffed by 230 doctors and 700 nurses, according to hospital records.

Dental Tribune Asia Pacific Edition | 3/2017

© Luca Lorenzelli/Shutterstock.com

New findings from a Singaporean study suggest that infants with atopic dermatitis might be at a higher risk of developing caries as toddlers.
By DTI

MELBOURNE, Australia: Modelling the effect of different combinations of taxes on sugar, salt and fat and a subsidy on fruits and vegetables on the death and morbidity rates of Australians, a new study has found that imposing a tax on sugar could avert about 270,000 disability-adjusted life years. In addition, the research estimated that, when combined to maximise benefits, taxes and subsidies could reduce the country’s health care spending by A$3.4 billion.

In the Western world, non-communicable diseases, such as obesity, diabetes, cardiovascular disease and dental caries, are mainly attributable to an unbalanced intake of fats, sugars and salt. In order to tackle the burden of those diseases, an increasing number of countries have already implemented or proposed taxes on unhealthy foods and drinks. However, the actual cost-effectiveness of levies and subsidies on certain nutritional items to reduce the burden of diet-induced diseases is uncertain and can only be estimated.

In the current study, researchers at the University of Melbourne simulated the effect of different combinations of taxes on unhealthy foods and a subsidy on fruits and vegetables based on the Australian population of 22 million in 2010. The model analysis set the sizes of the taxes and subsidy such that combined there would be less than a one per cent change in total food expenditure by the average household.

The results showed that a tax on sugar had the greatest impact among the taxes simulated. A sugar tax could avert 270,000 disability-adjusted life years (DALYs), the researchers calculated. DALYs are years of a healthy lifespan that are lost to disease. This equals a gain of 1.2 years of healthy life for every 100 Australians alive in 2010, which is a health outcome that few other public health interventions could deliver across the whole population, according to the researchers.

In comparison, a salt tax was estimated to save 130,000 DALYs, a saturated fat tax 97,000 DALYs and a sugar-sweetened beverage tax 12,000 DALYs. As for a fruit and vegetable subsidy, the study was unable to determine an isolated clear health benefit, although it too made for additional averted DALYs and reduced health sector spending, the researchers wrote.

The study adds to growing evidence of large health benefits and cost-effectiveness of using taxes and regulatory measures to influence the consumption of healthy foods. Based on the results of the models, the formulation of a tax and subsidy package should therefore be given more prominent and serious consideration in public health nutrition strategy, they concluded.

The study, titled “Taxes and subsidies for improving diet and population health in Australia: A cost-effectiveness modelling study”, was published online on 14 February in the PLOS Medicine journal.