Sodium lauryl sulphate

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interview themselves before carrying out group work.

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Oral health

Sodium lauryl sulphate

Sir, sodium lauryl sulphate (SLS) is a synthetic product that is broadly utilised in toothpaste. Recently, a systematic review reported on SLS based dentifrices and their influence on recurrent aphthous stomatitis. The results also mentioned that SLS-free dentifrices showed significant reduction on number, duration, episodes and pain among recurrent aphthous ulceration (Sutton's disease) patients.[1] In addition, SLS has been linked with other adverse effects likely to compromise oral health such as local irritation of mucosa leading to desquamation.[2] Due to desquamation the integrity of the oral mucosa is compromised, thus initiating aphthous stomatitis. Globally, aphthous stomatitis is reported as being among the most common oral mucosal pathologies.

There is a need for the search of natural and innovative substances that can fill the role provided by SLS in toothpastes, with less or no potential for harm. Plant-derived saponin may prove beneficial as it is likely to be relatively harmless when taken orally, and toxicity is minimised during ingestion by low absorption and hydrolysis.[3,4] While the foaming properties of saponin might be inferior to SLS, it may still produce a substantial effect that is visible and favourable to consumers. Limitations on plant sources may also be adjusted by seeking yield from frequently discarded plant material; and a potential reserve of such material is the Jamaican ackee (*Blighia sapida*).

Being a natural source, it is biodegradable and less likely to bioaccumulate and cause toxicity and disease. Currently, there are no studies that show the occurrence of recurrent aphthous ulcers from the use of ackee-derived saponin. Confirmation of the benefits of ackee-derived toothpaste could boost its production and contribute to a better use of the enormous quantity of seeds and pods that are often discarded annually in Jamaica. Given the popularity and acceptance of ackee in Jamaica, toothpaste derived with ingredients from the ackee plant is likely to find high acceptability. This innovation would also expand the economic impact of ackee farming for the country and the wider world.

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