

Dry Mouth Remedy Alleviates GERD while Sleeping

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Recently published results of a double blind randomized controlled trial assessing the effectiveness of an oral adhering disc (OraCoat XyliMelts, by OraHealth) previously shown in two studies to stimulate saliva production during sleep [1] shows that its use can also decrease the symptoms of nocturnal GERD [2] in individuals with concomitant dry mouth. The control in this study was a gel also recommended for reducing dry mouth. Both disc and gel use during sleep was found to significantly reduce perceived reflux and heartburn, antacid use, and hoarseness in comparison to pre-intervention assessment; but improvement was greatest for those using the discs. For heartburn, comparison of the two remedies demonstrated that the disc was significantly more effective than the gel in reducing pain ($p < .01$); while comparison for other variables did not reveal a significant difference between the potential remedies ($p \geq .13$). The authors conclude that the use of a product intended to reduce dry mouth during sleep by stimulating saliva can be an effective adjunctive remedy for reducing reflux and heartburn symptoms in patients with GERD and xerostomia.

As a natural antidote to GERD, saliva flow serves to neutralize, dilute, and wash down acid that escapes the stomach [3,4]. Stomach acid infusion into the upper esophagus is thought to stimulate salivation through what has been termed an 'esophago-salivary' reflex, but when saliva flow is significantly reduced during sleep in patients who have excessive dry mouth, the normal reflex may not be initiated when acid escapes into the lower esophagus. It would appear that increasing salivary flow in these individuals can mitigate symptoms.

The hypothesis that stimulation of salivation during sleep by a slowly dissolving flavored intraoral adhering disc could improve reflux and heartburn symptoms associated with GERD appears to be confirmed by the results of this study. The results also raise questions about the apparent relationship of excessive dry mouth that occurs during sleep and GERD; and they suggest the need for additional research assessing possible explanatory mechanisms

responsible for the observed effect.

The design of this study, which recruited subjects from across the USA via the internet, precluded objective salivary flow assessment during sleep. Given this, it would be enlightening if future research could also include an objective measure of gland activity. This could be performed by using a surrogate for salivary production such as swallowing measured by electrophysiology [5]. Electrodiagnostic methodology has been used to evaluate various swallowing pathologies and has been found to be a reliable indicator of functional activity [6]. In addition to swallowing assessment, there may be utility in assessing the buffering capacity of the saliva in individuals with GERD that appear to respond to salivary stimulation as this variable has been shown to vary between individuals and could also conceivably impact a response to intervention. Perhaps the most interesting direction for additional research would be to determine if a night-time flavored saliva stimulant also significantly alleviates GERD in subjects with normal levels of saliva. An exciting area of research awaits further exploration.

Regardless, the results of this published study suggest a novel and unique supplemental strategy for managing GERD symptoms in subjects with dry mouth occurring during sleep.

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